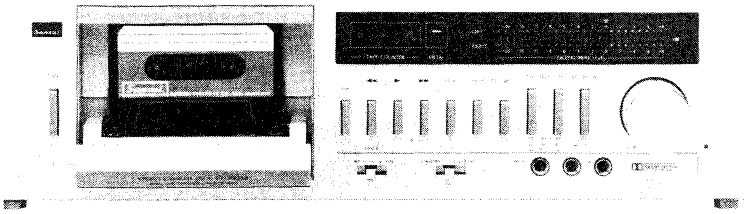
SERVICE MANUAL

STEREO CASSETTE TAPE DECK

METAL-TAPE-COMPATIBLE/HIGH-B HEAD

SANSUI D-300M



- SPECIFICATIONS

Track	4-Track (2-Channel Stereo)
Tape speed	4.8 cm/sec. (1-7/8 ips)
Motor	Electronically Controlled DC Motor
Wow and flutter	within 0.05 % WRMS
Fast wind time	approximately 85 seconds (C-60)
Frequency response (Record/Playback)	
Normal Tape (LH) (−20 VU)	20 to 15,000 Hz (30 to 14,000 Hz ±3 dB)
Metal Tape (−20 VU)	20 to 18,000 Hz (30 to 17,000 Hz ±3 dB)
(0 VU)	30 to 13,000 Hz ±3 dB
Signal to noise ratio (Record/Playback)	
Metal Tape (without Dolby Noise Reduction Effect)	better than 58 dB (weighted)
(With Dolby Noise Reduction)	better than 68 dB (above 5 kHz)
Erasure factor (Metal Tape)	more than 65 dB at 1,000 Hz
Input sensitivity and impedance (0 VU, 1,000 Hz)	
MIC	0.4 mV/200Ω ~ 5 kΩ
LINE IN (REC)	70 mV/47 kΩ
Output level (0 VU, 1,000 Hz)	
LINE OUT (PLAY)	400 mV
PHONES	30 mV
Power requirements	
Power voltage	110 ~ 120, 220 ~ 240 V (50/60 Hz)
For U.S.A. and Canada	120 V (60 Hz)
Power consumption	38 W
Dimensions	430 mm (16-15/16") W 132 mm (5-1/4") H 238 mm (9-3/8") D
Weight	5.1 kg (11.2 lbs) net 5.8 kg (12.7 lbs) packed

* Design and specifications subject to changes without notice for improvements.

Sansui

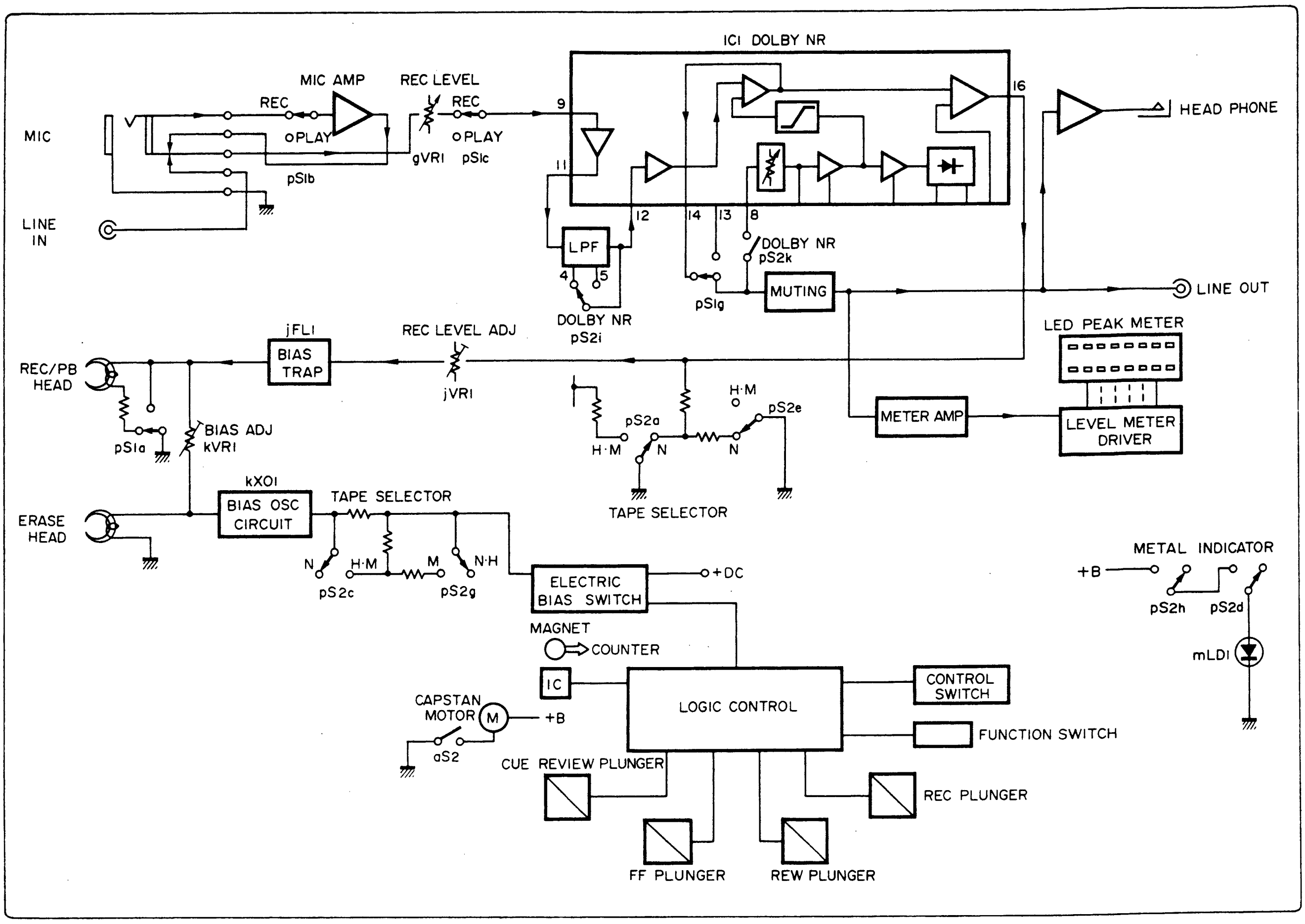
SANSUI ELECTRIC CO., LTD.

1. BLOCK DIAGRAM

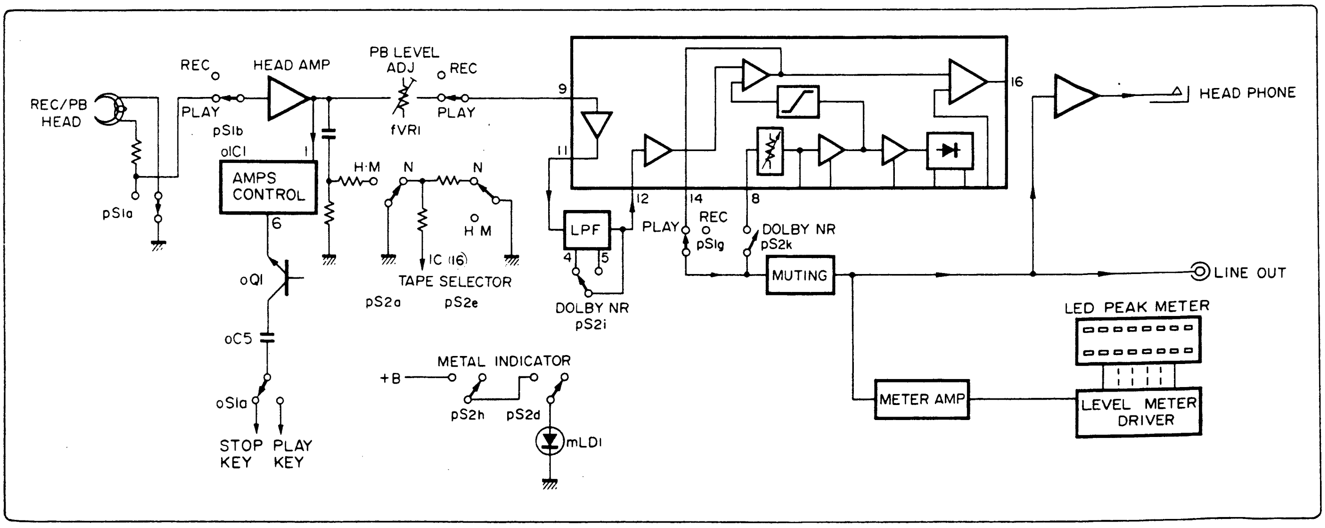
1-1. TYPE I (G-1305)

* There exist two kinds of D-300M electrical partion, principal difference of TYPE I from TYPE II.
  TYPE I; It has DOLBY NR IC (μA7300) with built in REC amplifier.
  TYPE II; It has DOLBY NR IC (NE646B), and other models too.
They can not put NE646B in place of μA7300, please be carefully.

A) Recording Operation Block Diagram

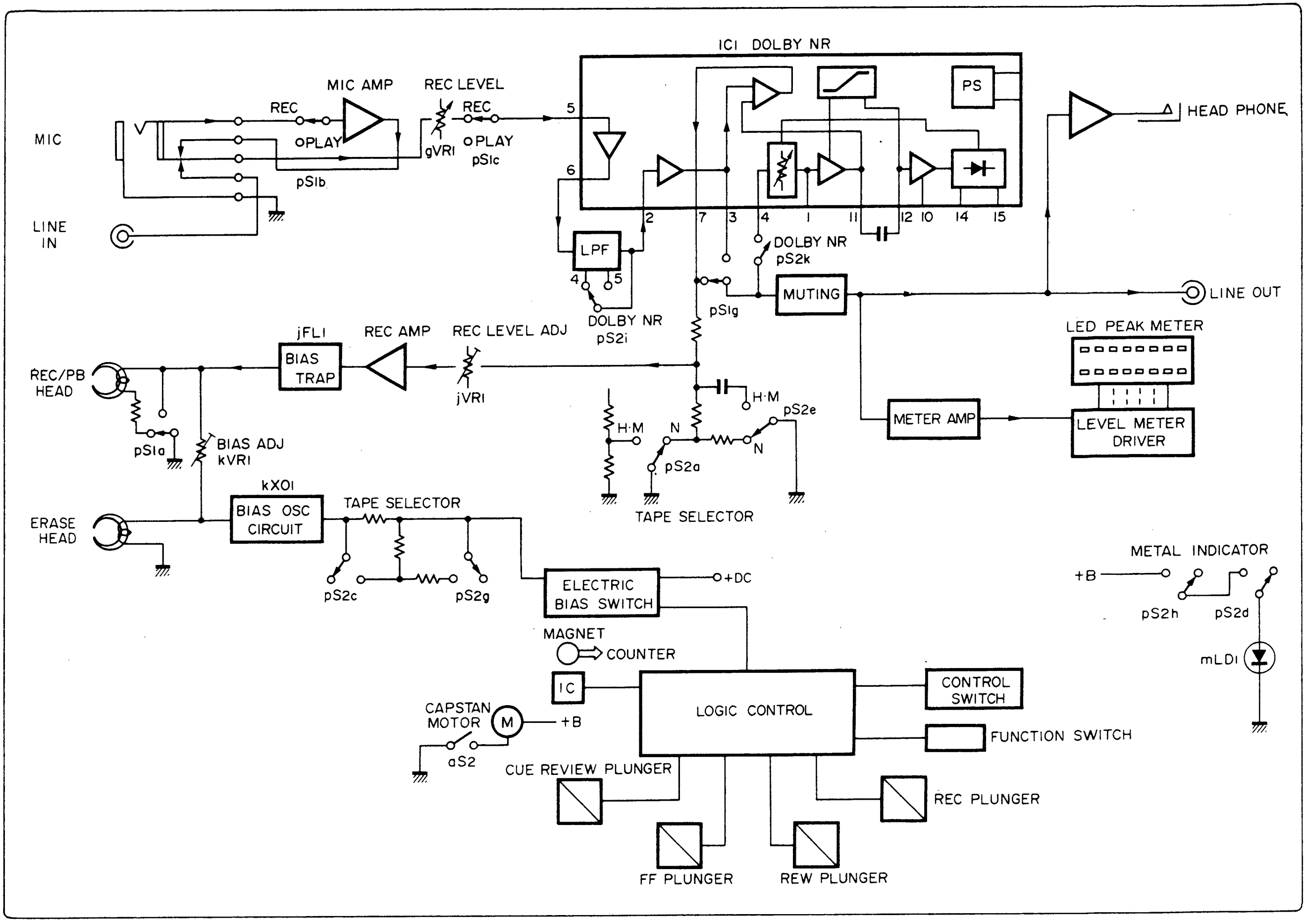

MIC
LINE IN
MIC AMP
REC
OPLAY
pSIb
REC LEVEL
REC
OPLAY
gVRI
pSIc
ICI DOLBY NR
9
11
12
14
13
8
16
LPF
4
5
DOLBY NR
pS2i
DOLBY NR
pS2k
pSIg
MUTING
HEAD PHONE
LINE OUT
LED PEAK METER
METER AMP
LEVEL METER DRIVER
jFLI
BIAS TRAP
REC LEVEL ADJ
jVRI
REC/PB HEAD
pSIa
BIAS ADJ
kVRI
H·M
pS2a
pS2e
H·M
N
N
TAPE SELECTOR
kXOI
BIAS OSC CIRCUIT
TAPE SELECTOR
ERASE HEAD
N
H·M
M
N·H
pS2c
pS2g
ELECTRIC BIAS SWITCH
+DC
MAGNET
COUNTER
IC
CAPSTAN MOTOR
M
+B
oS2
LOGIC CONTROL
CONTROL SWITCH
FUNCTION SWITCH
CUE REVIEW PLUNGER
REC PLUNGER
FF PLUNGER
REW PLUNGER
METAL INDICATOR
+B
pS2h
pS2d
mLDI

B) Playback Operation Block Diagram

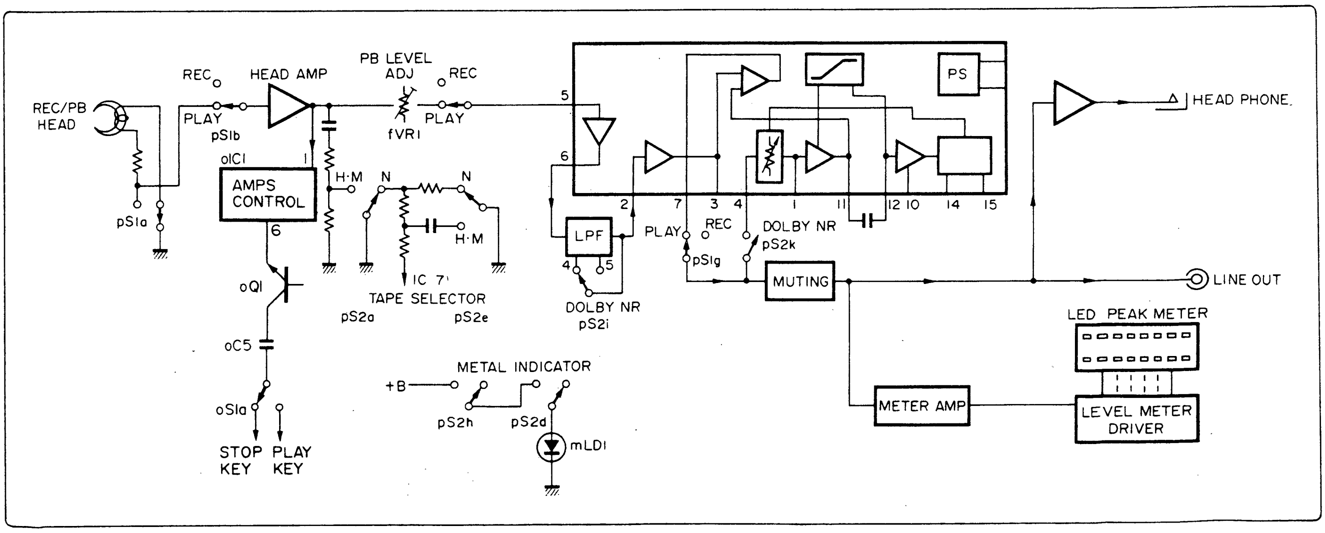

REC/PB HEAD
pSIa
REC
PLAY
pSIb
HEAD AMP
oICI
1
AMPS CONTROL
6
oQI
oC5
oSIa
STOP KEY
PLAY KEY
PB LEVEL ADJ
fVRI
REC
PLAY
H·M
N
N
H M
IC (16)
TAPE SELECTOR
pS2a
pS2e
METAL INDICATOR
+B
pS2h
pS2d
mLDI
9
11
12
14
8
16
LPF
4
5
DOLBY NR
pS2i
PLAY
REC
pSIg
DOLBY NR
pS2k
MUTING
HEAD PHONE
LINE OUT
LED PEAK METER
METER AMP
LEVEL METER DRIVER

1-2. TYPE II (G-1324)

A) Recording Operation Block Diagram


IC1 DOLBY NR
MIC AMP
REC LEVEL
REC
REC
MIC
OPLAY
gVR1
OPLAY
pS1c
pS1b
PS
HEAD PHONE
LINE IN
5
6
2
7
3
4
1
11
12
10
14
15
LPF
DOLBY NR
pS2k
MUTING
LINE OUT
DOLBY NR
pS2i
pS1g
jFL1
BIAS TRAP
REC AMP
REC LEVEL ADJ
jVR1
REC/PB HEAD
pS1a
BIAS ADJ
kVR1
LED PEAK METER
H·M
H·M
N
pS2e
N
pS2a
METER AMP
LEVEL METER DRIVER
kX01
BIAS OSC CIRCUIT
TAPE SELECTOR
TAPE SELECTOR
ERASE HEAD
pS2c
pS2g
ELECTRIC BIAS SWITCH
+DC
METAL INDICATOR
+B
pS2h
pS2d
mLD1
MAGNET
COUNTER
IC
LOGIC CONTROL
CONTROL SWITCH
CAPSTAN MOTOR
M
+B
aS2
FUNCTION SWITCH
CUE REVIEW PLUNGER
REC PLUNGER
FF PLUNGER
REW PLUNGER

B) Play Back Operation Block Diagram


REC
HEAD AMP
PB LEVEL ADJ
REC
REC/PB HEAD
PLAY
pS1b
fVR1
PLAY
5
6
PS
HEAD PHONE
oIC1
1
AMPS CONTROL
6
H·M
N
N
H·M
pS1a
2
7
3
4
1
11
12
10
14
15
LPF
PLAY
REC
DOLBY NR
pS2k
pS1g
MUTING
LINE OUT
IC 7
TAPE SELECTOR
pS2a
pS2e
4
5
DOLBY NR
pS2i
oQ1
oC5
LED PEAK METER
METAL INDICATOR
+B
pS2h
pS2d
mLD1
METER AMP
LEVEL METER DRIVER
oS1a
STOP KEY
PLAY KEY

2. OPERATION

2-1. Operation of Mechanism Section (See Fig. 2-1, Fig. 2-2)

A. Release of Brake

When depressing one of the control buttons PLAY, FF, or REW, the FF or REW plunger moves the brake shoes downwards to release the brake.

B. Operations of PLAY

1) When setting the cassette-half, the cassette sensor lever moves upwards to turn on the half-switch. In this condition, the capstan motor begins to rotate.
2) Accordingly, the capstan motor drives the capstan through the capstan belt and flywheel.
3) When depressing the PLAY button in this condition, the FF and REW plungers move the shift lever upwards through the solenoid and PLAY levers, and moves the stopper arm at the same time.
4) The gear rotates in mesh with the gear portion of the flywheel. At the same time, the cam portion of the gear moves the shift arm and the head base upwards.
5) Next, the head base lock arm locks the shift arm, and holds the head base at the upward position. After that, the gear stops a distance away from the flywheel.
6) In this condition, the pinch roller is pressed against the capstan to drive the tape. In addition, the subidler also moves upwards and, thereby, the motor drives the take-up reel hub assembly through the take-up idler to wind the tape.

C. Operations of REC

1) The basic operations are the same as in the PLAY operation. When the erroneous-erasure prevention claw of the cassette half moves the REC Sensor Lever upwards, the erroneous-erasure prevention switch is turned on to enable to perform the REC operation of the logic circuit.
2) When depressing the REC button, the REC/PLAY plunger is energized to switch the PLAY/REC amplifier to the REC mode.

D. Operations of FF

1) When depressing the FF button, the FF plunger releases the brake. At the same time, the FF idler moves upwards, the motor drives the take-up reel hub assembly through the take-up idler.

E. Operations of REW

1) When depressing the REW button, the REW plunger releases the brake. At the same time, the take-up idler is directly pressed against the supply reel hub assembly to rotate it.

F. Operations of AMPS (Automatic Music Program Search)

1) When depressing the FF or REW button with the AMPS switch set to the STAND BY position during the PLAY operation, since the CUE REVIEW plunger and either the FF or REW plunger are energized, the head base lock arm returns to the original position to release the locking of the shift arm, with the result that the head base is moved downwards.
2) At the position where the head base moves 1.5 mm downwards, the cue review lock lever pushed by the cue review plunger holds the head base. In this condition, the FF or REW operation is performed.
3) When no signal portion on the cassette tape comes, since this condition is the same as that where the STOP button is depressed, the locking of the head base by the cue review lock lever is released.
4) When the AMPS switch is set to the PLAY position, the basic operation is the same as in the STAND BY operation. When no signal portion on the cassette tape comes, since this condition is the same as that where the PLAY button is depressed, the operation returns to the PLAY mode again.

Fig. 2-1

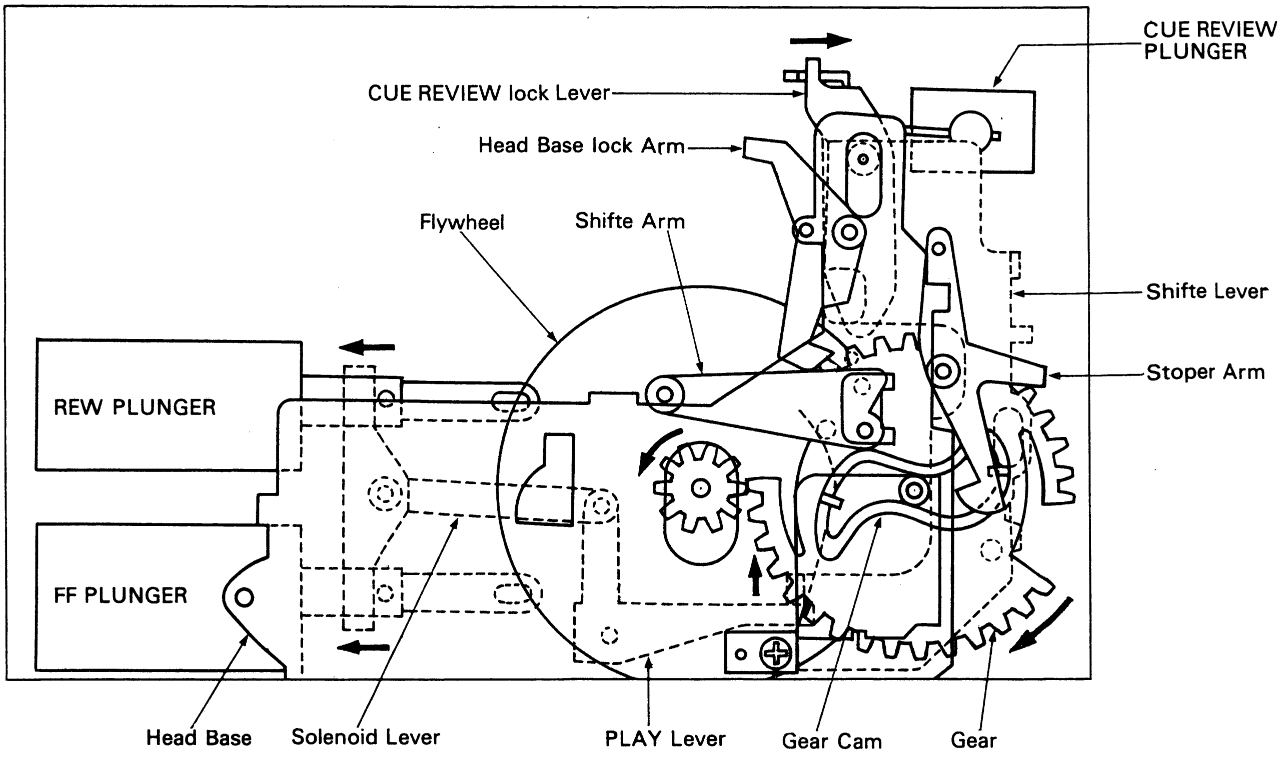
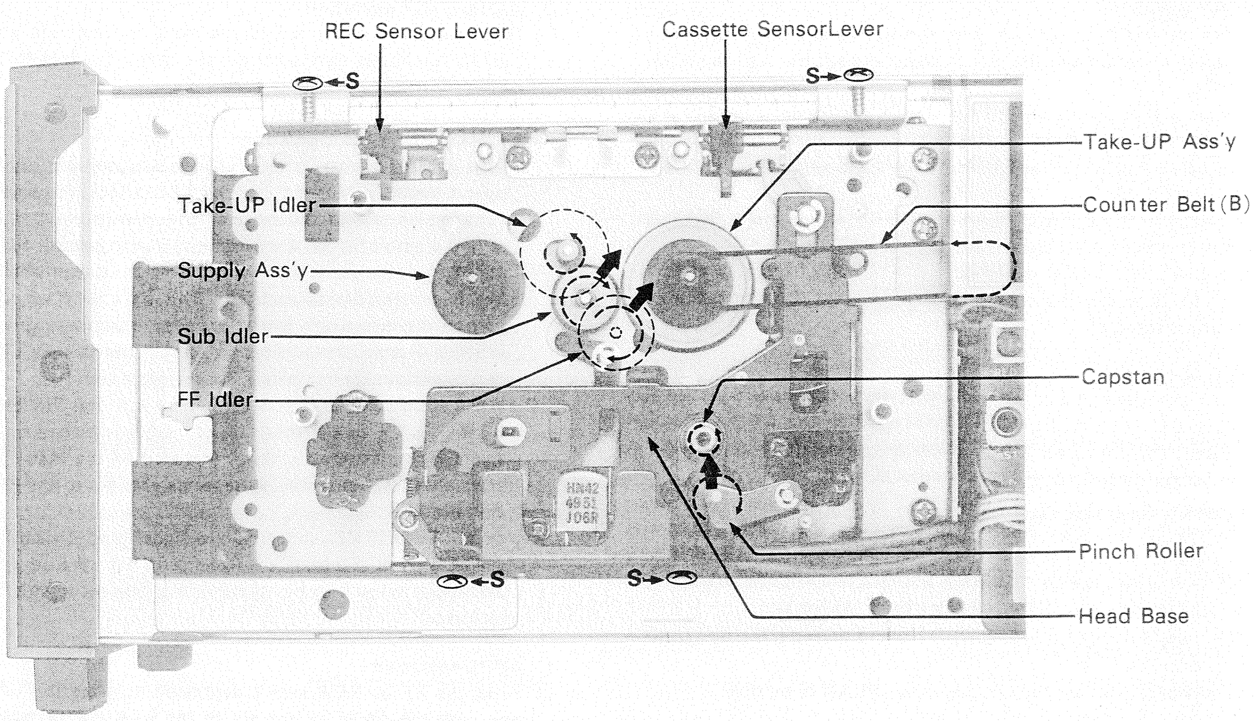


Fig. 2-2


REC Sensor Lever
Cassette SensorLever
S
S
Take-UP Ass'y
Take-UP Idler
Counter Belt (B)
Supply Ass'y
Sub Idler
Capstan
FF Idler
Pinch Roller
S
S
Head Base

2-2. Operation of Electric Circuit (Refer to block diagram, schematic diagram)

A. Functions and Operations of C-MOS LSI used for the logic control circuit

This stereo cassette deck has realized a full-logic, feather-touch control by using logic circuits mainly configured by a C-MOS LSI D-554C and plunger solenoids.

The main functions and operations of the D-554C are as follows:

1) Each mode is operated when a signal corresponding to each mode is applied to the input of the LSI through the corresponding transistor. The selected mode is kept until the mode is switched to another mode.
2) The most of operations are directly performed without any delay, however, operations of from STOP to PLAY and from PLAY to REW are performed after a stop of about 0.2 sec. in order to protect the tape and the mechanism.
   On the operations other than those described above, for instance, in the case where the pause operation is released from the REC PAUSE or PLAY PAUSE, each output changes immediately after the PAUSE key is depressed.
3) When turning the power supply on from off, the operation mode is set to the STOP mode for about three seconds.
4) It is possible to perform automatic recording and automatic playback by using the extra timer.

Fig. 2-3 Top View & Pin function of IC D-554C

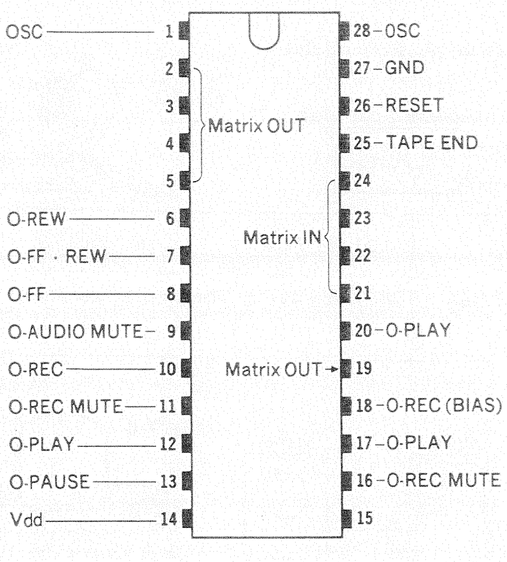

OSC 1
2
3
4
5
Matrix OUT
O-REW 6
O-FF · REW 7
O-FF 8
O-AUDIO MUTE 9
O-REC 10
O-REC MUTE 11
O-PLAY 12
O-PAUSE 13
Vdd 14
28-OSC
27-GND
26-RESET
25-TAPE END
24
23
Matrix IN
22
21
20-O-PLAY
Matrix OUT
19
18-O-REC (BIAS)
17-O-PLAY
16-O-REC MUTE
15

Fig. 2-4 Mode of each output terminal for each key input
(The "0" mark indicates the H-level output)

PIN No.	INPUT / OUTPUT	STOP	FF	REW	PLAY	REC/ PLAY	PAUSE STOP	PAUSE PLAY	PAUSE REC/ PLAY	REC/ MUTE REC/ PLAY
6	O-REW			○						
7	O-FF · REW		○	○						
8	O-FF		○							
9	O-AUDIO MUT	○	○	○	*○	*○	○	○	○	○
10	O-REC					○			○	○
11	O-REC MUT	○	○	○	○	○	○	○	*	*
12	O-PLAY				○	○				○
13	O-PAUSE						○	○	○	
16	O-REC MUT									○
17	O-PLAY				○	○		○	○	
18	O-REC					○				
20	O-PLAY				○	○				○

Note: The "*0" mark indicates level more than H-level by 0.8 V.
The "*" mark indicates level less than H-level by 0.8 V.

B. Operations of Logic Control Circuits (See Fig. 2-3, Fig. 2-4 and schematic diagram)

1. PLAY operation

1) When depressing the PLAY key, the transistor nQ3 is turned on to apply a signal from the matrix signal output pin 2 to the input pin 22.
2) About 0.2 sec. after the PLAY key is depressed, the O-PLAY potential changes from L level to H level to turn on the transistors nQ22 and nQ23, and thereby the FF and REW plunger are both energized.
3) At the same time, the O-PLAY turns on the transistor nQ17 and lights up the PLAY LED (nLD2).
4) The O-AUDIO MUTE potential also changes from L-level to H-level to turn off the transistor nQ11, and thereby the audio muting is released.

2. REC operation

1) When the cassette half is set, the erroneous-erasure prevention switch aS1 is turned on. Therefore, when the REC key is depressed, the transistor nQ2 is turned on to apply a signal from the matrix output pin 2 to the input pin 23.
2) At the same time, when the PLAY key is depressed, the mode changes to the REC mode. In this case, the O-REC potential changes from L level to H level to turn on the transistor nQ26 and to energize the REC/PLAY plunger and the transistor nQ16 is also turned on to light up the REC LED (nLD1).
3) The transistor nQ2 is also turned on to activate the bias oscillation circuit.
4) Other operations are the same as in the PLAY operation.

3. PAUSE operation

1) In the PAUSE operation, the O-PLAY potential changes from H-level to L-level except potential of output pin 17 and FF, REW plunger are released.
2) At the same time, the O-PAUSE potential changes from L-level to H-level to turn on the transistor nQ18 and lights up the PAUSE LED (Led nLD3).

4. FF and REW operation

1) In the FF operation, the O-FF potential changes from L level to H level to turn on the transistor nQ20. Also, the O-FF/REW potential changes from L level to H level to turn on the transistor nQ19, and thereby the FF plunger is energized.
2) In the REW operation, the O-REW potential changes from L level to H level to turn on the transistor nQ21, and the O-FF/REW potential also changes from L level to H level to turn on the transistor nQ19. As a result, the REW plunger is energized.
3) The signal output generated during the FF or REW operations is eliminated by changing the O-AUDIO MUTE potential to L level to activate the muting circuit.

5. AUTO STOP operation

1) When no pulse is applied to the rotation detection pulse input pin 25 for about two seconds, the mode changes to the STOP mode automatically.

6. TIMER PLAY/REC operation

1) In order to change to the STOP mode automatically when the power supply is turned on, the LSI D-554C is provided a time constant circuit to the base of the transistor nQ14. That is to say, the potential of the reset pin 26 is changed to H level for about three seconds. This is the same condition when the STOP key is depressed automatically. This time constant circuit serves to prevent erroneous operations, for instance, caused by noise generated from the audio amplifier or unbalance of rise times due to various time constants in the logic circuits.
2) When the power supply is turned on with the TIMER switch set to the PLAY mode, the transistor nQ8 is turned on to apply a signal from the matrix output pin 19 to the input pin 21, and after about seven seconds the mode changes to the PLAY operation mode.
3) In the TIMER REC operation, a signal is applied by the transistor nQ9 from the matrix output pin 19 to the input pin 23 and after about seven seconds the mode changes to the REC operation mode

7. AMPS operation

1) When the FF or REW key is depressed during the PLAY operation with the AMPS switch set to the STAND BY position, the PLAY operation is released. In this case, the O-FF or O-REW potential changes from L level to H level and the FF or REW operation is performed.
2) At the same time, through the AMPS switch, the transistors nQ24 and nQ25 are turned on to energize the CUE REVIEW plunger.
3) In this case, the REC/PLAY head detects the signals recorded on the tape in slight touch therewith. The detected signal is applied to the input pin 1 of the nIC$_2$ (BA-335). When no tape signal is detected for three seconds or more (on the PLAY mode), since the potential of the output pin 6 of the nIC$_2$ is changed to L level, the base potential of the transistor nQ4 is changed to L level in a moment through the oQ$_1$, OC5, AMPS switch. This is the same condition where the STOP key is depressed.
4) The basic operation is the same when the AMPS switch is set to the PLAY mode. Since the output of the nIC$_2$ changes the base potential of the transistor nQ$_3$ to L level through the oQ$_1$, OC5 and AMPS switch, this is the same condition where the PLAY key is depressed.

3. ADJUSTMENTS

* There exist two kinds of electric section, please be careful.

3-1. Tape Speed Adjustment

Note: 1. Use Sansui Test Tape, SCT-S3K (3 kHz signals are recorded on the tape).
2. Connections are shown in Fig. 3-1.

Fig. 3-1

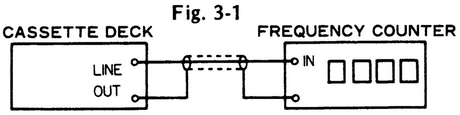
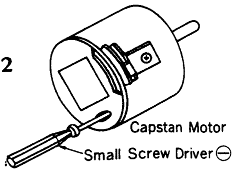


Fig. 3-2



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	TAPE SPEED Adj.	LINE OUT Frequency counter	Playback the TEST TAPE SCT-S3K.	Turn semi-variable resistor as Fig. 3-2.	3000 Hz ±45 Hz	Use small screw driver.

3-2. Playback Adjustment

Note: 1. Before this adjustment, clean REC/P.B. head surface.
2. For this adjustment, use Sansui Test Tape, SCT-F10KN, SCT-L400N and SCT-F1K.
3. Set the Dolby NR switch to be OFF.
4. Connections are shown in Fig. 3-3.

Fig. 3-3

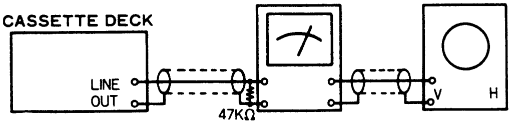
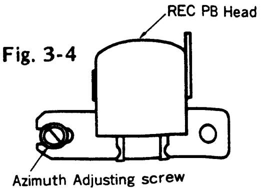


Fig. 3-4



STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	REC/P.B. Head Adj.	LINE OUT VTVM, Scope	Playback the TEST TAPE SCT-F10KN	Adjust the azimuth adjusting screw in Fig. 3-4.	MAX. Output on both channels.	Refer to loosely method of head cover on page 7. After this adjustment, lock the screw with paint.
2.	Playback Level Adj.	Same as above	Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-L400N.	Adjust each fVR1 on L-CH and R-CH.	500 mV ±2 dB	See Fig. 3-7 or Fig. 3-8.
3.	High Frequency Equalization Check	Same as above	Set TAPE SELECTOR to NORMAL (LH) position. Playback the TEST TAPE SCT-F1K.	———	———	Read output levels on both channels.
			Playback the TEST TAPE SCT-F10KN.	———	———	Confirm that the output levels are within ±3 dB comparing with the above readings.

Note: On STEP 3, set the TAPE SELECTOR to HIGH (CrO_2) position during playback of SCT-10KN, and confirm the indication on VTVM drops approximately 3 dB ~ 4 dB.

3-3. Recording Adjustment

1) Bias Adjustment

Note:
1. For this adjustment, use Sansui Test Tape, SCT-SA.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 3-5.

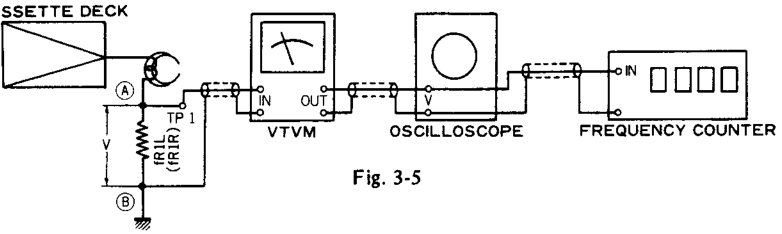


Fig. 3-5

STEP	SUBJECT	MEASURE OUTPUT	SETTING	ADJUSTMENT	ADJUST FOR	REMARKS
1.	Recording Bias Adj.	Between A & B points of each fR1L & fR1R. VTVM, Scope, Frequency Counter	Load the TEST TAPE SCT-SA. Depress PAUSE, REC and PLAY buttons. Set TAPE SELECTOR to HIGH (CrO_2) position.	Adjust kVR1L for L-CH and kVR1R for R-CH.	5 mV (G-1305) or 6.8 mV (G-1324)	See Fig. 3-7 or Fig. 3-8.
			Set TAPE SELECTOR to NORMAL (LH) position.	———	———	Confirm the indication on VTVM shows 3.7 mV (G-1305) or 4.5 mV (G-1324).
			Set TAPE SELECTOR to METAL position.	———	———	Confirm the indication on VTVM shows 8.5 mV.
2.	Bias Frequency Check	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to NORMAL (LH) position.	———	———	Confirm that the Frequency Counter shows 85 kHz ±10 kHz.

Fig. 3-7 G-1305 Main Circuit Board

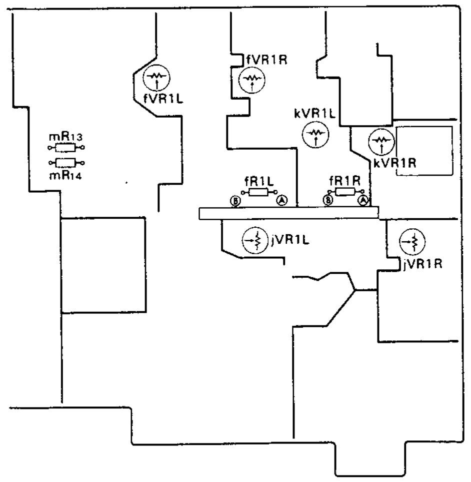
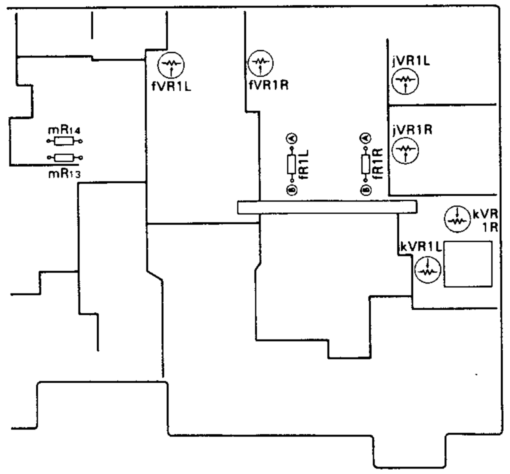


Fig. 3-8 G-1324 Main Circuit Board



2) Rec Level & Frequency Response Adjustment

Note:
1. Rec Level Volume . . . . Max.
2. Connections are shown in Fig. 3-6.
3. Set the Dolby NR switch to be OFF.

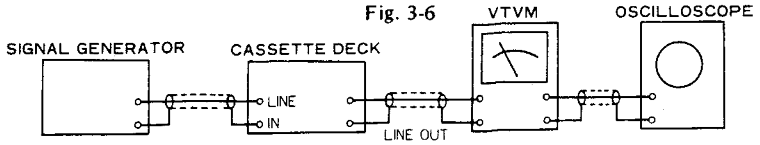


Fig. 3-6

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REMARKS
1.	REC Level Adj.	Feed 1 kHz, 70 mV from S.G into LINE IN.	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Depress PAUSE, PLAY and REC button. 2. Adjust the Rec Level Volume for obtaining 400 mV on VTVM. 3. Push off the PAUSE button, then record the 1 kHz signal. 4. Play back the 1 kHz signal. 5. Confirm that the output levels on both channels are 400 mV ±2 dB on VTVM.	1. If not, turn jVR1 (REC, L-CH) and jVR1 (REC, R-CH) until output level 400 mV ±2 dB on both channel are obtained. 2. Repeat this REC Level adj. until the indication on VTVM will be 400 mV ±2 dB.	See Fig. 3-7 or Fig. 3-8.
2.	Frequency Response Adj.	Feed 1 kHz 7 mV (−20 dB) and 10 kHz 7 mV (−20 dB) from S.G. into LINE IN.	Same as above	Load the TEST TAPE SCT-SA. Set TAPE SELECTOR to HIGH (CrO_2) position. 1. Record the 1 kHz and 10 kHz signals from S.G. 2. Play back the 1 kHz and 10 kHz signals, then confirm that both output levels equal.	1. If not, adjust kVR1L for L-CH and kVR1R for R-CH slightly until the output levels will be equal.	As kVR1L and kVR1R are previously adjusted in step of Bias Adjustment, turn them slightly, if necessary.

2-4. Peak Level Indicator Adjustment

Note:
1. Set the TAPE SELECTOR to be NORMAL (LH) position.
2. Set the Dolby NR Switch to be OFF.
3. Connections are shown in Fig. 3-6.

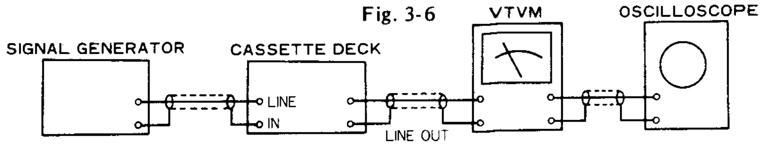


Fig. 3-6

STEP	SUBJECT	INPUT SIGNAL	MEASURE OUTPUT	SETTING	ADJUSTMENT	REAMRKS
1.	Peak Level Indicator Adjustment	Feed 1 kHz, 120 mV from S.G. into LINE IN	LINE OUT VTVM Scope	Load the TEST TAPE SCT-SA 1. Depress PAUSE, PLAY & REC button. 2. Adjust the REC Level Volume for obtaining 0 dB point on Level Indicator. 3. Then confirm the output levels on both channels are 500 mV ±2 dB on VTVM.	1. If more than it, take off mR13 (100kΩ). 2. If less than it, take off mR14 (33kΩ).	After this adjustment, perform the SETTING 1 ~ 3 again.

◆ List of Sansui Test Tape

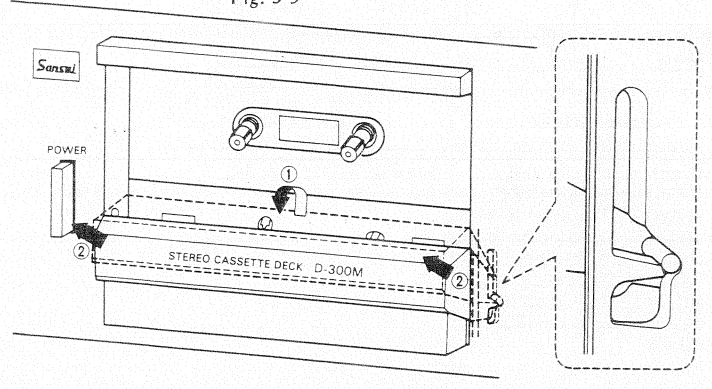
Name of TEST TAPE	Recorded Frequency	Description
SCT-F40	40 Hz	Playback Frequency Response Check
SCT-F1K	1 kHz	High Frequency Equalization Check
SCT-F10k	10 kHz	REC/PB Head Adjustment
SCT-L400N	400 Hz	Playback Level and Indicator Level Adjustment
SCT-S3K	3 kHz	Speed Check and Wow & Flutter Check
SCT-LH NORMAL (LH)		Recording Bias Adjustment
SCT-SA HIGH (CrO_2)		REC/PB Level Adjustment
SCT-CS Fe-Cr		Frequency Response Check

◆ Tape Selector Position

NORMAL Position	
FUJI	FL, FXI
MAXELL	UL, UD, XLI
TDK	D, AD, OD
SCOTCH	TARTAN CRYSTAL MASTER 120
SONY	AHF, BHF, CHF Low-Noise
AGFA	SUPER SUPER COLOR SUPER FERRO DYNAMIC
BASF	LN Super LH I

HIGH Position	
FUJI	FX II
MAXELL	XL II
TDK	SA
SCOTCH	MASTER 70
SONY	JHF
AGFA	STEREO CHROM
BASF	SCR
METAL Position	
MAXELL	MX
TDK	MA-R, MA
SCOTCH	Metafine
SONY	METALLIC

Fig. 3-9



◇ Loosely Method of Head Cover

Perform this procedure when make azimuth adjustment or replacing head cover. Since props of head cover are fragile, please pay attention.

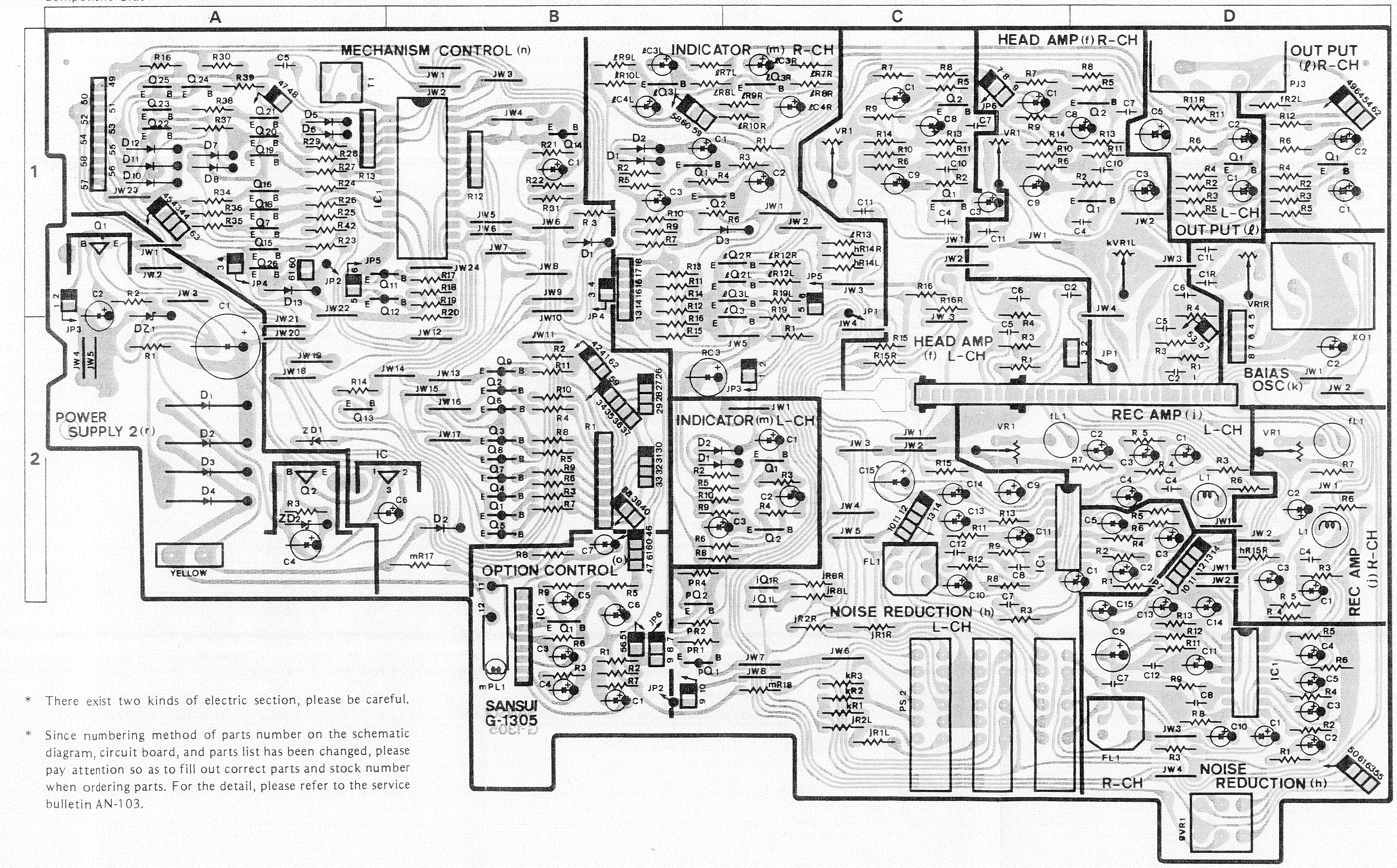
1) Open head cover above 1cm (1/3 inch) and this amgalation is important to remove it. (See Fig. 3-9 ①).
2) Putting forefinger in the 1 cm space (between head cover and mechanism cover) and lifting head cover inside to hold it by thumb and forefinger make easier to take off the supporting groove. (See Fig. 3-9 ②)
3) To attach head cover, perform Step 2) inversely at first, then push down diagonally after putting to supporting branch.

4. PARTS LOCATION & PARTS LIST

4-1. G-1305 Main Circuit Board (Stock No. 00612101) — (TYPE-I)

- Since some of capacitors and resistors are omitted from parts lists in this Service Manual, refer to the Common Parts List for capacitors & resistors which was appended previously to each Sansui Manual.

Component Side



* There exist two kinds of electric section, please be careful.

* Since numbering method of parts number on the schematic diagram, circuit board, and parts list has been changed, please pay attention so as to fill out correct parts and stock number when ordering parts. For the detail, refer to the service bulletin AN-103.

Parts List

Parts No.	Stock No.	Description
●Transistor		
fQ1	07225400, 1	2SC2320L F, G
fQ2	07225400, 1	2SC2320L F, G
jQ1	03068301, 2	2SC2320 E, F
nQ21	03068301, 2	2SC2320 E, F
nQ22	07206900, 1	2SC2001 M, L
nQ23	07206900, 1	2SC2001 M, L
nQ24	03068301, 2	2SC2320 E, F
nQ25	07206900, 1	2SC2001 M, L
nQ26	07206900, 1	2SC2001 M, L
oQ1	03068301, 2	2SC2320 E, F
pQ1	03012700, 1	2SA999 E, F
pQ2	03068301, 2	2SC2320 E, F
rQ1	03083901, 2	2SD313AL D, E
rQ2	03083901, 2	2SD313AL D, E
lQ1	07225400, 1	2SC2320L F, G
lQ2	03068301, 2	2SC2320 E, F
lQ3	03068301, 2	2SC2320 E, F
mQ1	03059501, 2	2SC945 Q, P
mQ2	03068301, 2	2SC2320 E, F
mQ3	03068301, 2	2SC2320 E, F
nQ1	03012700, 1	2SA999 E, F
nQ2	03012700, 1	2SA999 E, F
nQ3	03012700, 1	2SA999 E, F
nQ4	03012700, 1	2SA999 E, F
nQ5	03012700, 1	2SA999 E, F
nQ6	03012700, 1	2SA999 E, F
nQ7	03012700, 1	2SA999 E, F
nQ8	03012700, 1	2SA999 E, F
nQ9	03012700, 1	2SA999 E, F
nQ11	03012700, 1	2SA999 E, F
nQ12	03012700, 1	2SA999 E, F
nQ13	03068301, 2	2SC2320 E, F
nQ14	03068301, 2	2SC2320 E, F
nQ15	03068301, 2	2SC2320 E, F
nQ16	03068301, 2	2SC2320 E, F
nQ17	03068301, 2	2SC2320 E, F
nQ18	03068301, 2	2SC2320 E, F
nQ19	03068301, 2	2SC2320 E, F
nQ20	03068301, 2	2SC2320 E, F
●Diode		
mD1	03117600	1S2473D
mD2	03117600	1S2473D
mD3	07225500	1N60
nD1	03117600	1S2473D
nD2	03117600	1S2473D
nD3	03117500	1S2473D
nD4	03117600	1S2473D
nD5	03117600	1S2473D
nD6	03117600	1S2473D
nD10	03117700	10E-2
nD11	03117700	10E-2
nD12	03117700	10E-2
nD13	03117700	10E-2
rD1	03115300	30D-2
rD2	03115300	30D-2
rD3	03115300	30D-2
rD4	03115300	30D-2
●Zener Diode		
nDZ1	03178500	RD10E C
rDZ1	03179000	RD13E B
rDZ2	03163100	RD13E B
●Block Resistor		
nR1	07244500	RM8-223J
nR12	07244400	RM4-223J
nR13	07244400	RM4-223J
nT1	42306100	Clock Pulse Osc Coil
jFL1	42904400	Trap Coil
jL1	49005400	Inductor 3.3 mH
jVR1	07241300	10kΩ (B) Semi Variable Resistor REC LEVEL Adj.
fVR1	07241500	50kΩ (B) Semi Variable Resistor PB LEVEL Adj.

Parts No.	Stock No.	Description
gVR1	10250400	50kΩ (A) x 2 Variable Resistor
kVR1	07241600	100kΩ (B) Semi Variable Resistor BIAS Adj.
•IC		
hIC1	07224900	μA7300
oIC1	07252300	BA335
nIC1	07232500	μPD554C-031
nIC2	07232400	μPC78M10H
kXO1	07189700	Osc Block BO-3HA
hFL1	07196900	Low Pass Filter
pS1	07245000	Slide Switch (Play/REC)
pS2	07245200	Push Switch (Tape Selector)
pJ3	07249100	4P Terminal Board (Input/Output)
mR17	00182100	33Ω 1W N.I.R.
fC3	08301100	10μF 35V E.C.

- The circuit boards, G-1309, G-1306, G-1326, G-1307 (G-1327) and G-1308 (G-1325) are not supplied as the assembled, the individual parts on the circuit boards, however are provided for orders.

4-2. G-1309 Power Switch Circuit Board

Parts List

Parts No.	Stock No.	Description
qC1	08302200	10000pF 125V C.C.
qS1	07194500	Push Switch (Power)

4-3. G-1306 Control Switch Circuit Board (TYPE-I)

Parts List

Parts No.	Stock No.	Description
nLD1	03193700	SEL1110S LED
nLD2	07246200	SEL1710K LED
nLD3	07251600	SEL1910A LED
nS1	07245100	Push Switch (REC)
nS2	07245100	Push Switch (Rewind)
nS3	07245100	Push Switch (Play)
nS4	07245100	Push Switch (F.F.)
nS5	07245100	Push Switch (Stop)
nS6	07245100	Push Switch (Pause)
nS7	07245100	Push Switch (REC Mute)
nS8	07249900	Slide Switch (Timer)
oS1	07249900	Slide Switch (AMPS)

4-4. G-1326 Control Switch Circuit Board (TYPE-II)

Parts List

Parts No.	Stock No.	Description
nLD1	03193700	SEL1110S LED
nLD2	07246200	SEL1710K LED
nLD3	07251600	SEL1910A LED
nS1	07234700	Push Switch (REC)
nS2	07234700	Push Switch (Rewind)
nS3	07234700	Push Switch (PLAY)
nS4	07234700	Push Switch (F.F.)
nS5	07234700	Push Switch (Stop)
nS6	07234700	Push Switch (Pause)
nS7	07234700	Push Switch (REC Mute)
nS8	07249900	Slide Switch (Timer)
oS1	07249900	Slide Switch (AMPS)

4-5. G-1307 (G-1327) Metal Indicator Circuit Board

Parts List

Parts No.	Stock No.	Description
mLD1	07246200	SEL1710K LED

4-6. G-1308 (G-1325) Jack Circuit Board

Parts List

Parts No.	Stock No.	Description
pJ1	07194300	Headphone Jack
pJ2	07200300	Mic Jack

• Abbreviations

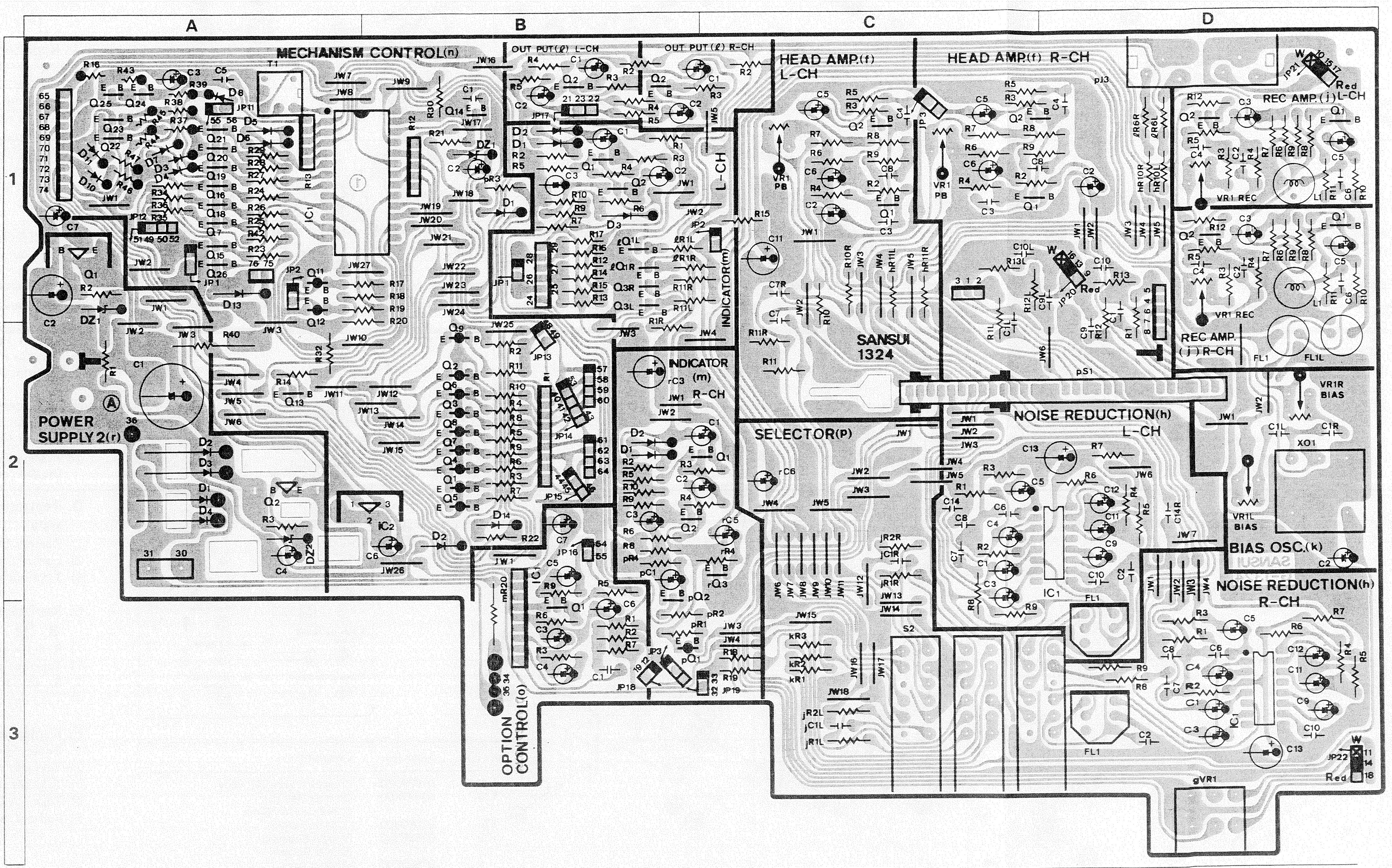
C.R. . . . . Carbon Resistor
S.R. . . . . Solid Resistor
Ce.R. . . . . Cement Resistor
M.R. . . . . Metal Film Resistor
F.R. . . . . Fusing Resistor
N.I.R. . . . . . . Non-Inflammable Resistor
C.C. . . . . Ceramic Capacitor
C.T. . . . . Ceramic Capacitor, Temperature Compensation
E.C. . . . . Electrolytic Capacitor
E.L. . . . . Low Leak Electrolytic Capacitor
E.B. . . . . Bi-Polar Electrolytic Capacitor
E.BL. . . . . Low Leak Bi-Polar Electrolytic Capacitor
Ta.C. . . . . Tantalum Capacitor
F.C. . . . . Film Capacitor
M.P. . . . . Metalized Paper Capacitor
P.C. . . . . . . Polystyrene Capacitor
G.C. . . . . Gimmic Capacitor

4-7. G-1324 Main Circuit Board (Stock No. 00639101) — (TYPE-II)

Parts List

Parts No.	Stock No.	Description
gVR1	10250400	50kΩ (A) x 2 Variable Resistor
●Transistor		
pQ1	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
pQ2	03068301, 2	2SC2320-E, F
	07194800, 1	2SC1815-Y, G
	07299700 ~ 2	2SC2603-D, E, F
	46057200, 1	LC945-P, K
pS1	07245000	Slide Switch (PLAY/REC)
pS2	07245200, 1	Push Switch (Tape Selector)
pJ3	07249100	4P Terminal Board (INPUT/OUTPUT)
●Transistor		
fQ1	07225400, 1	2SC2320L-F, G
	03060700 ~ 2	2SC1313-F, G, H
fQ2	07225400, 1	2SC2320L-F, G
	03060700 ~ 2	2SC1313-F, G, H
fC7	07215100	2700P C.C.
fC8	07215400	4700P C.C.
fC9	07216000	15000P C.C.
fC10	07215000	2200P C.C.
fVR1	07241500	50kΩ (B) Semi Variable Resistor PB LEVEL Adj.
●IC		
hIC1	03613600	NE646B
hC2	07211700	1000P C.C.
hC6	07215400	4700P C.C.
hC7	07215500	5600P C.C.
hC8	07216300	27000P C.C.
hC10	07216600	47000P C.C.
hFL1	07196900	Low Pass Filter
jQ1	03068301 ~ 3	2SC2320-E, F, G
	07194800, 1	2SC1815-Y, G
	07299700 ~ 2	2SC2603-D, E, F
jQ2	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	07299700 ~ 2	2SC2603-D, E, F
jC1	07215800	10000P C.C.
jC2	07211700	1000P C.C.
jC6	07216200	22000P C.C.
jFL1	42904400	Trap Coil
jL1	46090700	Inductor 3.3mH
jVR1	07241300	10kΩ (B) Semi Variable Resistor REC LEVEL Adj.
kXO1	46087000	Osc Block BO-3HA
kVR1	07241600	100kΩ (B) Semi Variable Resistor BIAS Adj.
●Transistor		
lQ1	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	07299700 ~ 2	2SC2603-D, E, F
lQ2	03068301, 2	2SC2320-E, F
	07194801	2SC1815-G
	46057200, 1	LC945-P, K
	07299701, 2	2SC2603-E, F
mQ1	03059502, 3	2SC945-P, K
	07194801	2SC1815-G
	03068302, 3	2SC2320-F, G
	46057201	LC945-K
	07299702	2SC2603-F
mQ2	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
mQ3	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
●Diode		
mD1	03117600	1S2473D
	46092700	US1035
mD2	03117600	1S2473D
	46092700	US1035
mD3	07225500	1N60
mR20	00182100	33Ω 1W N.I.R.
●Transistor		
nQ1	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ2	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ3	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ4	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ5	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ6	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ7	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ8	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ9	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ11	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ12	03012700, 1	2SA999-E, F
	07194700, 1	2SA1015-Y, G
	07299600 ~ 2	2SA1115-D, E, F
nQ13	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ14	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ15	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ16	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F

Parts No.	Stock No.	Description
nQ17	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ18	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ19	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ20	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ21	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ22	07206900, 1	2SC2001-M, L
	07254900, 1	2SC1741-Q, R
	03069101, 2	2SC2060-Q, R
	03085201, 2	2SD438-E, F
nQ23	07206900, 1	2SC2001-M, L
	07254900, 1	2SC1741-Q, R
	03069101, 2	2SC2060-Q, R
	03085201, 2	2SD438-E, F
nQ24	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
nQ25	07206900, 1	2SC2001-M, L
	07254900, 1	2SC1741-Q, R
	03069101, 2	2SC2060-Q, R
	03085201, 2	2SD438-E, F
nQ26	07206900, 1	2SC2001-M, L
	07254900, 1	2SC1741-Q, R
	03069101, 2	2SC2060-Q, R
	03085201, 2	2SD438-E, F
●IC		
nIC1	07232500	µPD554C-031
nIC2	07232400	µPC78M10H
●Diode		
nD1	03117600	1S2473D
	46092700	US1035
nD2	03117600	1S2473D
	46092700	US1035
nD3	03111600	1S2473D
	03111800	1S1588
	46052500	US1035
nD4	03111600	1S2473D
	03111800	1S1588
	46052500	US1035
nD5	03117600	1S2473D
	46092700	US1035
nD6	03117600	1S2473D
	46092700	US1035
nD7	03111600	1S2473D
	03111800	1S1588
	46052500	US1035
nD8	03111600	1S2473D
	03111800	1S1588
	46052500	US1035
nD10	03103400	10D1
nD11	03103400	10D1
nD13	03117700	10E-2
nD14	03117600	1S2473D
	46092700	US1035

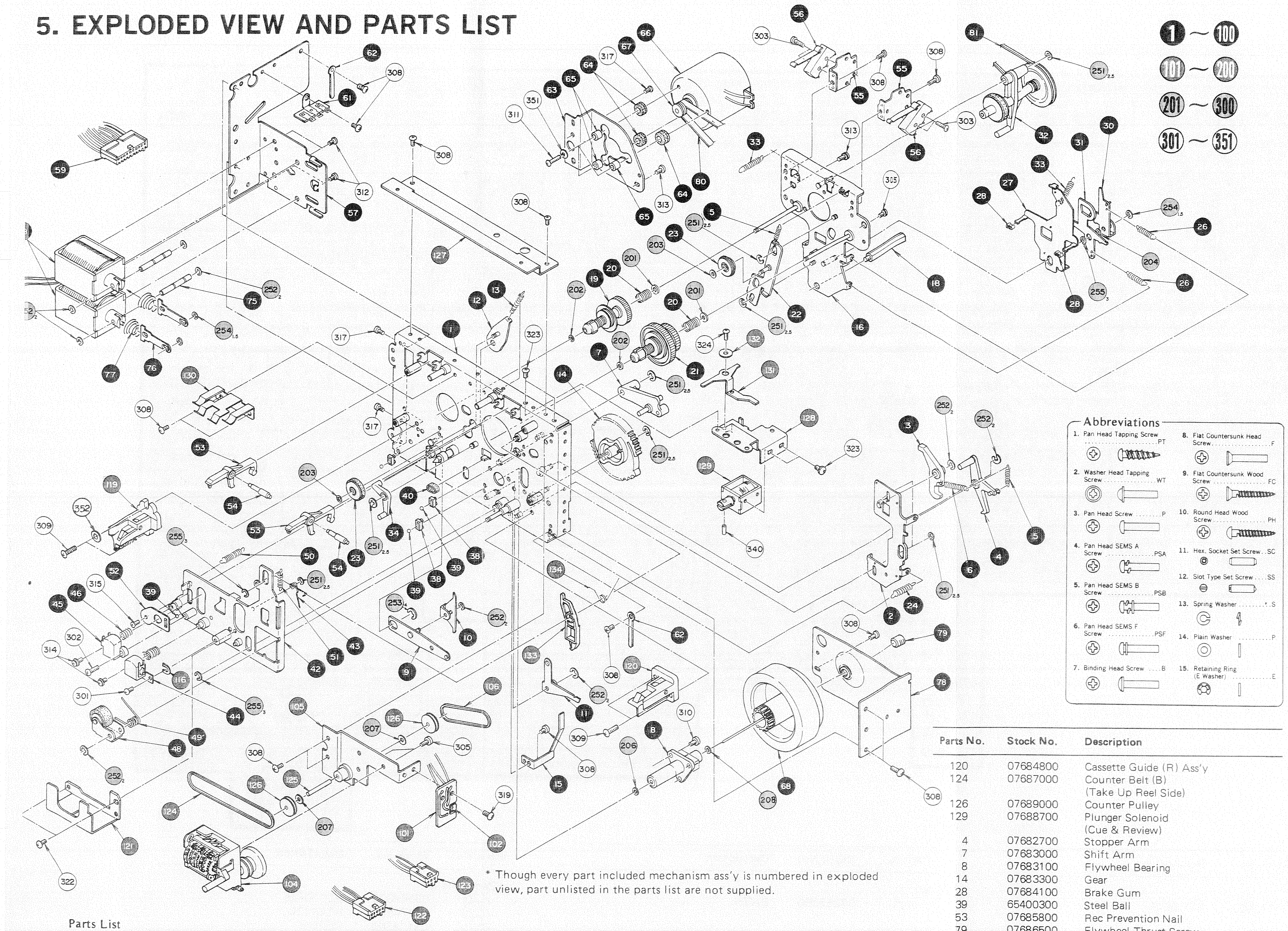

A
B
C
D
1
2
3
MECHANISM CONTROL(n)
OUT PUT(ℓ) L-CH
OUT PUT(ℓ) R-CH
HEAD AMP.(f) L-CH
HEAD AMP.(f) R-CH
REC AMP.(j) L-CH
REC AMP.(j) R-CH
L-CH
INDICATOR(m)
INDICATOR (m) R-CH
POWER SUPPLY 2(r)
SANSUI 1324
SELECTOR(P)
NOISE REDUCTION(h) L-CH
NOISE REDUCTION(h) R-CH
BIAS OSC.(k)
VR1R BIAS
VR1L BIAS
VR1 REC
VR1 PB
OPTION CONTROL(o)
IC1
IC2
T1
Red
W

Parts No.	Stock No.	Description
●Zener Diode		
nDZ1	03178400	RD10E-B
●Block Resistor		
nR1	46046300	R059223-C
nR12	46038900	R057223-C
nR13	46038900	R057223-C
nR40	00185500	10Ω 2W N.I.R.
nT1	42306100	Clock Pulse Osc Coil
●Transistor		
oQ1	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F

Parts No.	Stock No.	Description
●IC		
oIC1	07252300	BA335
●Transistor		
rQ1	03086101, 2	2SD357-D, E
rQ2	03083901, 2	2SD313AL-D, E
rQ3	03068300 ~ 3	2SC2320-D, E, F, G
	07194800, 1	2SC1815-Y, G
	46057200, 1	LC945-P, K
	07299700 ~ 2	2SC2603-D, E, F
●Diode		
rD1	03115300	30D2
rD2	03115300	30D2
rD3	03115300	30D2
rD4	03115300	30D2

Parts No.	Stock No.	Description
●Zener Diode		
rDZ1	03179000	RD13E-B
rDZ2	03174500	HZ15-2L
rDZ3	03178500	RD10E

5. EXPLODED VIEW AND PARTS LIST



Abbreviations

1. Pan Head Tapping Screw .... PT
2. Washer Head Tapping Screw .... WT
3. Pan Head Screw .... P
4. Pan Head SEMS A Screw .... PSA
5. Pan Head SEMS B Screw .... PSB
6. Pan Head SEMS F Screw .... PSF
7. Binding Head Screw .... B
8. Flat Countersunk Head Screw .... F
9. Flat Countersunk Wood Screw .... FC
10. Round Head Wood Screw .... PH
11. Hex. Socket Set Screw .... SC
12. Slot Type Set Screw .... SS
13. Spring Washer .... S
14. Plain Washer .... P
15. Retaining Ring (E Washer) .... E

* Though every part included mechanism ass'y is numbered in exploded view, part unlisted in the parts list are not supplied.

Parts List

Parts No.	Stock No.	Description
19	07683500	Supply Reel Hub Ass'y
21	07683700	Take-Up Reel Hub Ass'y
23	07683800	Idler (FF/REW)
32	07684300	Take-up Idler Ass'y
34	07684500	Idler Arm
44	07556600	REC/P.B. Head
45	45260400	Erase Head
48	07685400	Pinch Roller Ass'y
56	07688600	Micro Switch
58	07688800	Plunger Solenoid (REW, F.F.)

Parts No.	Stock No.	Description
64	07686100	Motor Cushion
66	43207500	Motor
67	07686300	Motor Pulley
68	07686400	Flywheel
80	07686600	Capstan Belt
81	07686700	Take Up Belt
102	03614000	Hall IC DN6838
104	07686800	Tape Counter
106	07686900	Counter Belt (A) (Counter Side)
119	07685000	Cassette Guide (L) Ass'y

Parts No.	Stock No.	Description
120	07684800	Cassette Guide (R) Ass'y
124	07687000	Counter Belt (B) (Take Up Reel Side)
126	07689000	Counter Pulley
129	07688700	Plunger Solenoid (Cue & Review)
4	07682700	Stopper Arm
7	07683000	Shift Arm
8	07683100	Flywheel Bearing
14	07683300	Gear
28	07684100	Brake Gum
39	65400300	Steel Ball
53	07685800	Rec Prevention Nail
79	07686500	Flywheel Thrust Screw
116	07685300	Head Spacer
•Spring		
6	07682900	Spring, lock arm
13	07683200	Spring, sub idler lever
15	07683400	Reset Plate
33	07684200	Spring, take-up idler, blake lever
46	07685200	Spring, head
50	07685600	Spring, head base
•Washer, Screws		
202	07688400	Poly-thrust Washer with Cut
308	07687400	Bind Head Tapping Screw M3 x 4
314	07687900	Toothed Screw M2 x 6

6. MAIN PARTS REPLACEMENT

(See 5. Exploded View)

A. Replacement of mechanism chassis

1) Remove bonnet, bottom plate and front panel.
2) Loosen 2 screws at mechanism cover to remove it.
3) Pluck out 3 connectors on circuit board G-1305 or G-1324 and cut the vinyl bands.
4) While push down the top hook (T) of peak level indicator frame slightly (See top view on page 15), push it this side to remove peak level indicator frame ass'y.
5) Loosen 4 screws Ⓢ (See Fig. 2-2 on page 4) fixing mechanism chassis.

B. Replacement of motor (66)

1) Take out mechanism chassis from set.
2) Loosen 2 screws (313) (317) at motor mounting plate (63) and 1 screw (308) at flywheel bearing plate (78).
3) Take out motor mounting plate (63) with motor from mechanism chassis.
4) Loosen 3 screws fixing motor.
5) Pull out motor pulley (67) after heating motor pulley by soldering iron. (To settle motor pulley, fix it by adhesive for metal.)

C. Replacement of capstan belt (80)

1) Take out mechanism chassis from set.
2) Loosen 3 screws (308) to remove flywheel bearing plate (78).
3) Take out take-up belt (81) and take out capstan belt (80) from the gap (between mechanism chassis and motor pulley).

D. Replacement of take-up reel hub ass'y & supply reel hub ass'y

1) Remove bonnet, bottom plate and front panel.
2) Loosen 2 screws at mechanism cover to remove it.
3) Take out polye-thrust washer (202) and pull out reel hub ass'y.

E. Replacement of counter belt A (106) & counter belt B (124)

1) Remove bonnet.
2) Take out counter belt A (106).
3) Remove front panel and mechanism cover.
4) Take out counter belt B (124).

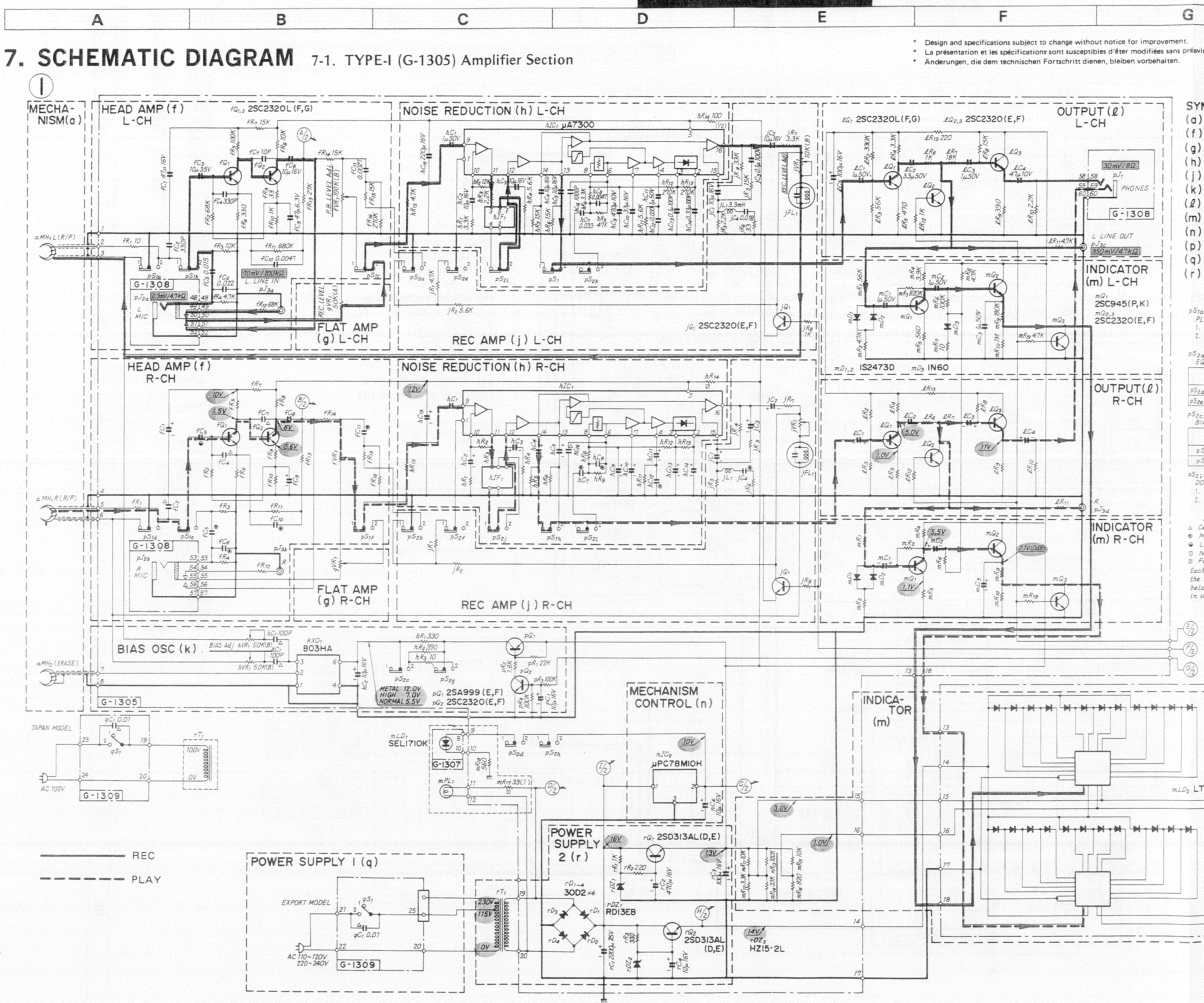
F. Replacement of take-up idler ass'y ㉜

1) Remove bonnet.
2) Take out take-up belt (81).
3) Take off take-up idler spring ㉝.
4) Take out E-type washer (251) at take-up idler shaft.
5) Pull out take-up idler ass'y.

7. SCHEMATIC DIAGRAM

7-1. TYPE-I (G-1305) Amplifier Section

- * Design and specifications subject to change without notice for improvement.
- * La présentation et les spécifications sont susceptibles d'éter modifiées sans préavis par suites d'améliorations éventuelles.
- * Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.


A
B
C
D
E
F
G
H
①
MECHANISM(a)
HEAD AMP (f) L-CH
FQ1,2 2SC2320L(F,G)
NOISE REDUCTION (h) L-CH
hIC1 μA7300
OUTPUT (ℓ) L-CH
ℓQ1 2SC2320L(F,G)
ℓQ2,3 2SC2320(E,F)
PHONES
G-1308
L LINE OUT
350mV/47kΩ
30mV/8Ω
70mV/100kΩ L LINE IN
0.3mV/4.7kΩ
L MIC
FLAT AMP (g) L-CH
REC AMP (j) L-CH
jQ1 2SC2320(E,F)
INDICATOR (m) L-CH
mQ1 2SC945(P,K)
mQ2,3 2SC2320(E,F)
mD1,2 1S2473D
mD3 1N60
HEAD AMP (f) R-CH
NOISE REDUCTION (h) R-CH
OUTPUT (ℓ) R-CH
R MIC
FLAT AMP (g) R-CH
REC AMP (j) R-CH
INDICATOR (m) R-CH
aMH1 L(R/P)
aMH1 R(R/P)
aMH2 (ERASE)
BIAS OSC (k)
kXO1 B03HA
BIAS Adj hVR1 50K(B)
METAL 12.0V
HIGH 7.0V
NORMAL 5.5V
pQ1 2SA999(E,F)
pQ2 2SC2320(E,F)
G-1305
JAPAN MODEL
AC 100V
G-1309
mLD1 SEL1710K
G-1307
MECHANISM CONTROL (n)
nIC2 μPC78M10H
INDICATOR (m)
mLD2 LT1005
POWER SUPPLY 2 (r)
rQ1 2SD313AL(D,E)
rD1~4 30D2×4
rDZ1 RD13EB
rQ2 2SD313AL (D,E)
rDZ2 HZ15-2L
POWER SUPPLY 1 (q)
EXPORT MODEL
AC 110~120V 220~240V
230V
115V
0V
REC
PLAY
1
2
3
4
5

SYMBOL OF FUNCTION
- (a) MECHANISM
- (f) HEAD AMP
- (g) FLAT AMP
- (h) NOISE REDUCTION
- (j) REC AMP
- (k) BIAS OSC
- (ℓ) OUTPUT
- (m) INDICATOR
- (n) MECHANISM CONTROL
- (p) SELECTOR
- (q) POWER SUPPLY (1)
- (r) POWER SUPPLY (2)

SWITCHES

pS1a~h
PLAY REC
1. PLAY
2. REC

qS1
POWER
1. OFF
2. ON

pS2a,b,d,e,f,h
EQUALIZER

	NORMAL (LH)	HIGH (CrO_2)	METAL
pS2a,b,d	1	2	2
pS2e,f,h	1	1	2

pS2c,g
BIAS SELECTOR

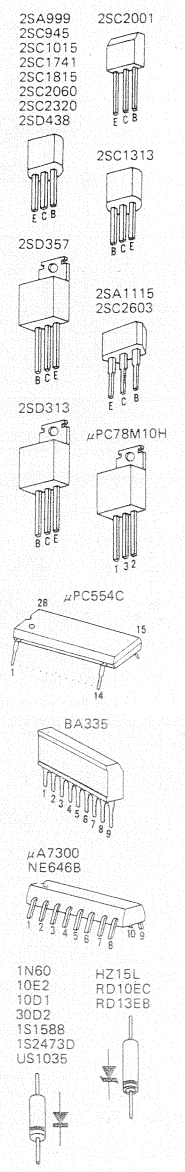
	NORMAL (LH)	HIGH (CrO_2)	METAL
pS2c	1	2	2
pS2g	1	1	2

pS2i~l
DOLBY NR
1. OFF
2. ON

SYMBOL
- △ Ceramic
- ◉ Myler
- ◒ Low-leak Electrolytic
- ⊡ Non-Inflammable Resistor
- ▨ Fusing Resistor

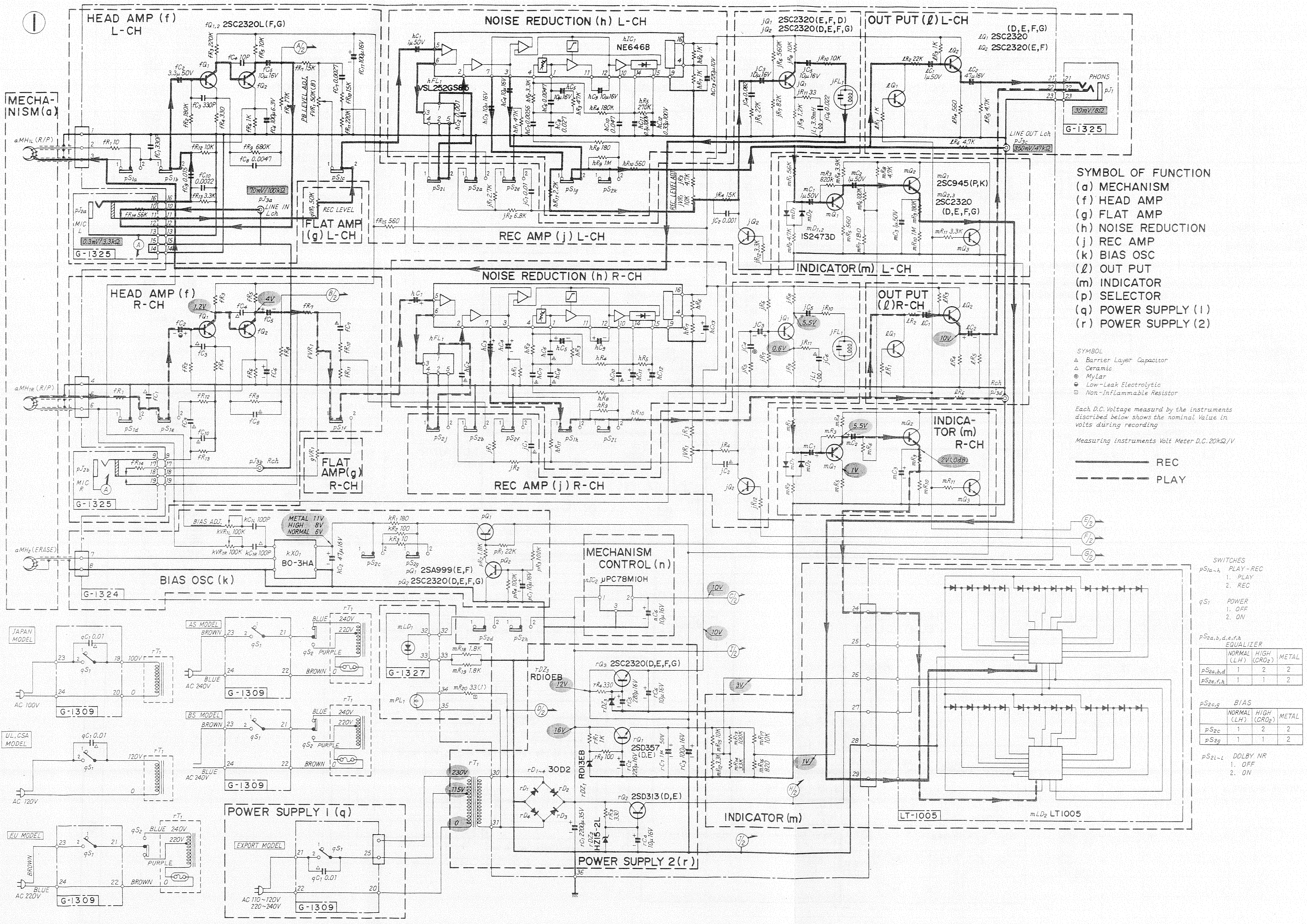
Each D.C. Voltage measurd by the instruments discribed below shows the nominal Value in Volts during recording

Measuring instruments
Volt Meter D.C 20kΩ/V


2SA999
2SC945
2SC1015
2SC1741
2SC1815
2SC2060
2SC2320
2SD438
2SC2001
2SC1313
2SD357
2SA1115
2SC2603
2SD313
μPC78M10H
μPC554C
BA335
μA7300
NE646B
1N60
10E2
10D1
30D2
1S1588
1S2473D
US1035
HZ15L
RD10EC
RD13EB
E C B
B C E

7-2. TYPE-II (G-1324) Amplifier Section

* La présention et les spécifications sont susceptibles d'être modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.
* Design and specifications subject to change without notice for improvement.


A
B
C
D
E
F
G
H
1
2
3
4
5
HEAD AMP (f) L-CH
fQ1,2 2SC2320L(F,G)
MECHA-NISM(a)
NOISE REDUCTION (h) L-CH
hIC1 NE646B
hFL1 VSL252GS85
jQ1 2SC2320(E,F,D)
jQ2 2SC2320(D,E,F,G)
OUT PUT (ℓ) L-CH
(D,E,F,G)
ℓQ1 2SC2320
ℓQ2 2SC2320(E,F)
PHONS
30mV/8Ω
G-1325
LINE OUT Lch
350mV/47kΩ
70mV/100kΩ
LINE IN Lch
REC LEVEL
FLAT AMP (g) L-CH
PB LEVEL ADJ
REC AMP (j) L-CH
REC LEVEL ADJ
INDICATOR (m) L-CH
mQ1 2SC945(P,K)
mQ2,3 2SC2320 (D,E,F,G)
mD1,2 1S2473D
MIC
0.3mV/3.3kΩ
G-1325
HEAD AMP (f) R-CH
1.2V
4V
NOISE REDUCTION (h) R-CH
OUT PUT (ℓ) R-CH
5.5V
0.6V
10V
Rch
FLAT AMP(g) R-CH
REC AMP (j) R-CH
INDICA-TOR (m) R-CH
5.5V
1V
2V(0dB)
MIC
G-1325
BIAS ADJ
METAL 11V
HIGH 8V
NORMAL 6V
kXO1 BO-3HA
pQ1 2SA999(E,F)
pQ2 2SC2320(D,E,F,G)
BIAS OSC (k)
G-1324
MECHANISM CONTROL (n)
nIC2 µPC78M10H
10V
10V
JAPAN MODEL
AC 100V
G-1309
UL,CSA MODEL
AC 120V
G-1309
EU MODEL
BROWN
BLUE
AC 220V
G-1309
AS MODEL
BROWN
BLUE
AC 240V
240V
220V
PURPLE
G-1309
BS MODEL
BROWN
BLUE
AC 240V
G-1309
POWER SUPPLY 1 (q)
EXPORT MODEL
AC 110~120V 220~240V
G-1309
G-1327
rDZ3 RD10EB
12V
rQ3 2SC2320(D,E,F,G)
16V
rQ1 2SD357 (D,E)
rQ2 2SD313(D,E)
rD1~4 30D2
RD13EB
HZ15-2L
230V
115V
0
POWER SUPPLY 2 (r)
3V
1V
INDICATOR (m)
LT-1005
mLD2 LT1005

SYMBOL OF FUNCTION
(a) MECHANISM
(f) HEAD AMP
(g) FLAT AMP
(h) NOISE REDUCTION
(j) REC AMP
(k) BIAS OSC
(ℓ) OUT PUT
(m) INDICATOR
(p) SELECTOR
(q) POWER SUPPLY (1)
(r) POWER SUPPLY (2)

SYMBOL
- ⚠ Barrier Layer Capacitor
- △ Ceramic
- ◎ Mylar
- ◒ Low-Leak Electrolytic
- ⊡ Non-Inflammable Resistor

Each D.C. Voltage measurd by the instruments discribed below shows the nominal Value in volts during recording

Measuring instruments Volt Meter D.C. 20kΩ/V

——— REC
– – – PLAY

SWITCHES

pS1a~h PLAY-REC
1. PLAY
2. REC

qS1 POWER
1. OFF
2. ON

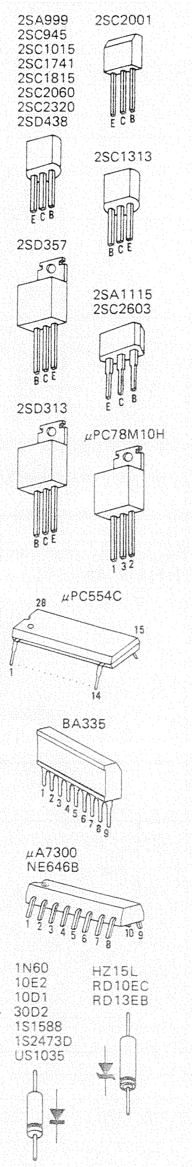
pS2a,b,d,e,f,h
EQUALIZER

	NORMAL (LH)	HIGH (CRO2)	METAL
pS2a,b,d	1	2	2
pS2e,f,h	1	1	2

pS2c,g BIAS

	NORMAL (LH)	HIGH (CRO2)	METAL
pS2c	1	2	2
pS2g	1	1	2

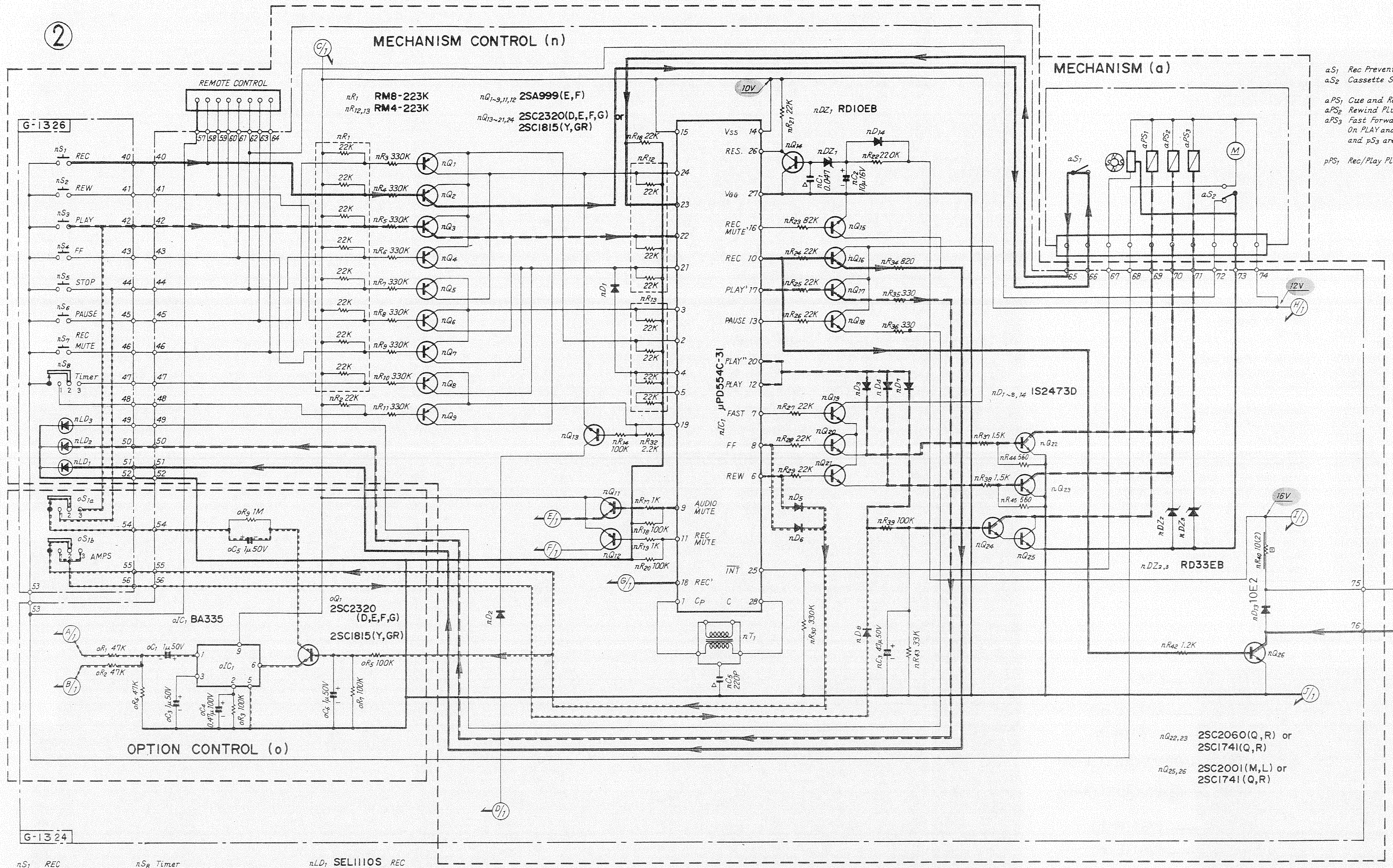
pS2i~l DOLBY NR
1. OFF
2. ON


2SA999
2SC945
2SC1015
2SC1741
2SC1815
2SC2060
2SC2320
2SD438
E C B
2SC2001
E C B
2SC1313
B C E
2SD357
B C E
2SA1115
2SC2603
E C B
2SD313
B C E
µPC78M10H
1 3 2
µPC554C
28
15
1
14
BA335
1 2 3 4 5 6 7 8 9
µA7300
NE646B
1 2 3 4 5 6 7 8 10 9
1N60
10E2
10D1
30D2
1S1588
1S2473D
US1035
HZ15L
RD10EC
RD13EB

7-3. Control Section

* Since the schematic diagram of G-1305 (Control Section) is similar to that of G-1324, it is omitted from this manual.

* Design and specifications subject to change without notice for improvement.
* La présentation et les spécifications sont susceptibles d'éter modifiées sans préavis par suites d'améliorations éventuelles.
* Änderungen, die dem technischen Fortschritt dienen, bleiben vorbehalten.


②
MECHANISM CONTROL (n)
MECHANISM (a)
OPTION CONTROL (o)
G-1326
G-1324
REMOTE CONTROL
57 58 59 60 61 62 63 64
nS1 REC
nS2 REW
nS3 PLAY
nS4 FF
nS5 STOP
nS6 PAUSE
nS7 REC MUTE
nS8 Timer
1 2 3
40 41 42 43 44 45 46 47 48 49 50 51 52 53 54 55 56
nLD3
nLD2
nLD1
oS1a
oS1b
AMPS
nR1 RM8-223K
nR12,13 RM4-223K
nQ1~9,11,12 2SA999(E,F)
nQ13~21,24 2SC2320(D,E,F,G) or 2SC1815(Y,GR)
nR1 22K
nR2 22K
nR3 330K
nR4 330K
nR5 330K
nR6 330K
nR7 330K
nR8 330K
nR9 330K
nR10 330K
nR11 330K
nQ1
nQ2
nQ3
nQ4
nQ5
nQ6
nQ7
nQ8
nQ9
nR16 22K
nR12
nR13
22K
nD1
nQ13
nR14 100K
nR32 2.2K
nIC1 μPD554C-31
Vss 14
RES. 26
VGG 27
REC MUTE' 16
REC 10
PLAY' 17
PAUSE 13
PLAY'' 20
PLAY 12
FAST 7
FF 8
REW 6
AUDIO MUTE 9
REC MUTE 11
INT 25
REC' 18
Cp 1
C 28
15 24 23 22 21 3 2 4 5 19
10V
nR21 22K
nDZ1 RD10EB
nQ14
nDZ1
nD14
nR22 220K
nC1 0.047
nC2 10μ16V
nR23 82K
nR24 22K
nR25 22K
nR26 22K
nQ15
nQ16
nQ17
nQ18
nR34 820
nR35 330
nR36 330
nD3
nD4
nD7
nD7~8,14 1S2473D
nR27 22K
nR28 22K
nR29 22K
nQ19
nQ20
nQ21
nD5
nD6
nR37 1.5K
nR38 1.5K
nR44 560
nR45 560
nQ22
nQ23
nR39 100K
nQ24
nQ25
nDZ2
nDZ3
nDZ2,3 RD33EB
nQ11
nQ12
nR17 1K
nR18 100K
nR19 1K
nR20 100K
E/1
F/1
G/1
C/1
D/1
H/1
I/1
J/1
A/1
B/1
nT1
nC5 220P
nR30 330K
nD8
nC3 47μ50V
nR43 33K
nD2
16V
12V
nR40 10(2)
nD13 10E2
nR42 1.2K
nQ26
75
76
pPS1
aS1
aS2
aPS1
aPS2
aPS3
M
65 66 67 68 69 70 71 72 73 74
oR9 1M
oC5 1μ50V
oIC1 BA335
oQ1 2SC2320 (D,E,F,G) 2SC1815(Y,GR)
oR1 47K
oR2 47K
oC1 1μ50V
oIC1
1 3 9 6 2 5
oR6 47K
oC3 1μ50V
oC4 0.47μ100V
oR3 100K
oC6 1μ50V
oR7 100K
oR5 100K

aS1 Rec Prevention SW
aS2 Cassette SW

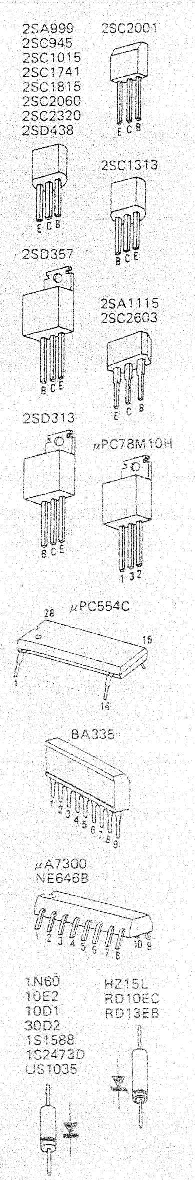
aPS1 Cue and Review Plunger Solenoid
aPS2 Rewind Plunger Solenoid
aPS3 Fast Forward Plunger Solenoid
On PLAY and REC mode, both pS2 and pS3 are driven

pPS1 Rec/Play Plunger Solenoid

nQ22,23 2SC2060(Q,R) or 2SC1741(Q,R)

nQ25,26 2SC2001(M,L) or 2SC1741(Q,R)

SYMBOL OF FUNCTION
(a) MECHANISM
(n) MECHANISM CONTROL
(o) OPTION CONTROL


2SA999
2SC945
2SC1015
2SC1741
2SC1815
2SC2060
2SC2320
2SD438
E C B
2SC2001
E C B
2SC1313
B C E
2SD357
B C E
2SA1115
2SC2603
E C B
2SD313
B C E
μPC78M10H
1 3 2
μPC554C
28 15 1 14
BA335
1 2 3 4 5 6 7 8 9
μA7300
NE646B
1 2 3 4 5 6 7 8 10 9
1N60
10E2
10D1
30D2
1S1588
1S2473D
US1035
HZ15L
RD10EC
RD13EB

nS1 REC
nS2 REW
nS3 PLAY
nS4 FF1
nS5 STOP
nS6 PAUSE
nS7 REC MUTE

nS8 Timer
1. Rec
2. OFF
3. Play

oS1 AMPS
1. Stand by
2. OFF
3. Play

nLD1 **SEL1110S** REC
nLD2 **SEL1710K** PLAY
nLD3 **SEL1910A** PAUSE

——————— REC
— — — — — PLAY
··············· AMPS

SYMBOL
△ Ceramic
⊡ Non-Inflammable Resistor

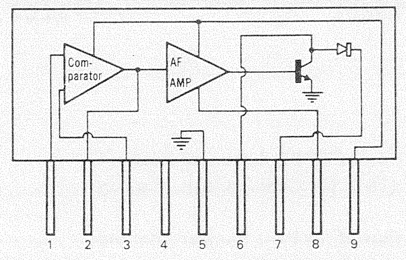
Each D.C. Voltage measured by the instruments described below shows the nominal value in volts during recording

Measuring instruments Volt Meter D.C. 20kΩ/V

OPTIONAL USE FOR TRANSISTORS.

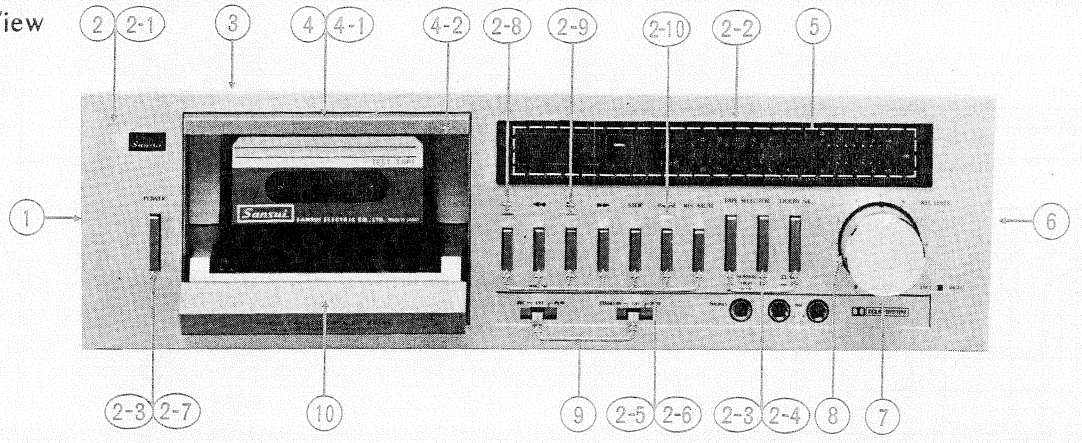
PWB NO	PARTS NO	TYPE NO OF TRANSISTOR
G-1324	jQ1,2 ℓQ1	2SC2320 2SC1815 2SC2603
	ℓQ2 mQ2,3 rQ3 nQ13~21 nQ24 oQ1 pQ2	2SC2320 2SC1815 2SC2603 LC945
	mQ1	2SC2320 2SC1815 2SC2603 2SC945 LC945
	nQ1~9,11,12 pQ1	2SA999 2SA1115 2SA1015
	nQ22,23,25,26	2SC2001 2SC1741 2SC2060 2SD438
	fQ1,2	2SC2320L 2SC1313

BA-335


Com-parator
AF AMP
1 2 3 4 5 6 7 8 9

8. OTHER PARTS

8-1. Front View

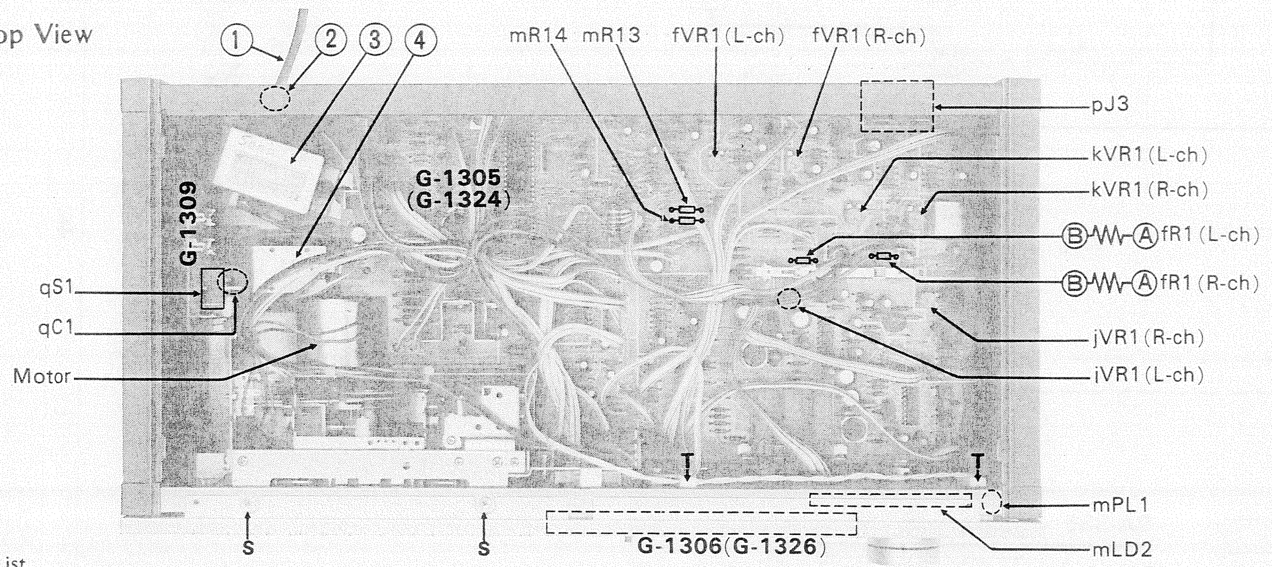


Parts List

Parts No.	Stock No.	Description
1	07601900	Side Panel Ass'y Left
<Silver Model>		
2	07626510	Front Panel Ass'y
2-1	07620600	Front Panel
2-2	07626700	Peak Level Indicator Cover
2-3	07580300	Push Button Power, etc.
2-4	07581300	Push Button Guide Tape Sel., Dolby
2-5	07583600	Push Button Control
2-6	07583400	Push Button Guide Control
2-7	07595700	Push Button Guide Power
<Black Model>		
2	07627610	Front Panel Ass'y
2-1	07620700	Front Panel
2-2	07626700	Peak Level Indicator Cover
2-3	07580500	Push Button Power, etc.
2-4	07581200	Push Button Guide Tape Sel., Dolby
2-5	07583700	Push Button Control
2-6	07583500	Push Button Guide Control
2-7	07628000	Push Button Guide Power
2-8	07578000	Indicator (REC)
2-9	07578100	Indicator (Play)

Parts No.	Stock No.	Description
2-10	07578200	Indicator (Pause)
3	07601400	Bonnet
<Silver Model>		
4	07651100	Mechanism Cover Ass'y
4-1	07610500	Mechanism Cover
4-2	07609700	Dress Panel
<Black Model>		
4	07651200	Mechanism Cover Ass'y
4-1	07610600	Mechanism Cover
4-2	07609800	Dress Panel
5	07647910	Peak Level Indicator Frame Ass'y
6	07602000	Side Panel Ass'y Right
7	07626300	Knob Left REC Level (Silver Model)
	07511600	Knob Left REC Level (Black Model)
8	07626400	Knob Right REC Level (Silver Model)
	07611500	Knob Right REC Level (Black Model)
9	07603100	Slide Knob (Silver Model)
	07603200	Slide Knob (Black Model)
10	07610100	Head Cover (Silver Model)
	07610200	Head Cover (Black Model)

8-2. Top View



Parts List

Parts No.	Stock No.	Description
mLD2	07245900	LT1005 LED
mPL1	07244800	Lamp 12 V
1	38005400	Power Supply Cord
2	39106000	Strain Relief
3	15001201	Power Transformer
4	*07271900, 1	Plunger Solenoid (REC/PLAY) TYPE I
	*43402500, 1	Plunger Solenoid (REC/PLAY) TYPE II

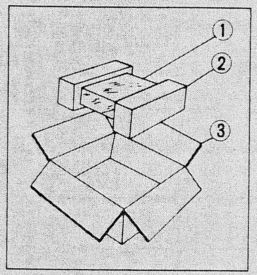
Note:

* On the occation of TYPE II plunger solenoid, solder nR_{40} (10Ω 2W Ce.R.) and it in series.

* On the occation of TYPE I plunger solenoid, must not solder nR_{40} in series.

9. PACKING LIST

Parts No.	Stock No.	Description
1	91263800	Vinyl Cover
2	07641000	Styrofoam Packing
3	07651400	Carton Case (Silver Model)
	07651600	Carton Case (Black Model)



10. ACCESSORY LIST

Stock No.	Description
07641500	Operating Instructions
38103300, 1	PJP Cord x 2
94300500	Head Cleaner (Cotton Buds)

Sansui

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